

=> FILE REG

FILE 'REGISTRY' ENTERED AT 11:17:51 ON 22 JUN 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2010 American Chemical Society (ACS)

=> D HIS

FILE 'HCA' ENTERED AT 11:02:00 ON 22 JUN 2010

L1 66 S DEVENNEY ?/AU
L2 2321 S STRASSER ?/AU
L3 66 S GORER ?/AU
L4 59046 S FAN ?/AU
L5 62 S CHONDROUDIS ?/AU
L6 229 S GIAQUINTA ?/AU
L7 106315 S HE ?/AU
L8 1009 S OYANAGI ?/AU
L9 1952 S URATA ?/AU
L10 20601 S IWASAKI ?/AU
L11 33657 S FUKUDA ?/AU
L12 4 S L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7 AND L8 AND L
SEL L12 2 RN

FILE 'REGISTRY' ENTERED AT 11:05:51 ON 22 JUN 2010

L13 134 S E1-E134
E ATOMIC
L14 95761 S E3
L15 1 S L13 AND L14
L16 186 S (PT (L) ZN (L) FE)/ELS
L17 82 S L16 (L) 3/ELC.SUB
L18 104 S L16 NOT L17
L19 76 S L16 AND L13
L20 6 S L17 NOT L19
L21 104 S L18 NOT (L19 OR L20)

FILE 'ZCA' ENTERED AT 11:14:30 ON 22 JUN 2010

L22 1 S L19
L23 7 S L20
L24 54 S L21
L25 34 S 1808-2002/PY,PRY,AY AND L24
L26 4 S 1808-2002/PY,PRY,AY AND L23

=> FILE ZCA

FILE 'ZCA' ENTERED AT 11:17:56 ON 22 JUN 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

=> D L22 1 BIB ABS FHITSTR HITRN

L22 ANSWER 1 OF 1 ZCA COPYRIGHT 2010 ACS on STN
AN 139:248047 ZCA Full-text
TI Fuel cell electrocatalyst containing platinum, zinc, and iron and/or
nickel
IN Strasser, Peter; Gorer, Alexander; Devenney, Martin; He, Ting; Fan,
Qun; Chondroudís, Konstantinos; Giaquinta, Daniel M.; Oyanagi,
Hiroyuki; Urata, Kenta; Iwasaki, Kazuhiko; Fukuda, Hiroichi
PA Symyx Technologies, Inc., USA; Honda Giken Kogyo Kabushiki Kaisha
SO PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2003077337	A1	20030918	WO 2003-US6613	20030306
	AU 2003216513	A1	20030922	AU 2003-216513	20030306
	US 20050227128	A1	20051013	US 2005-506483	20050415
PRAI	US 2002-362198P	P	20020306		
	WO 2003-US6613	W	20030306		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A fuel cell catalyst contains platinum, zinc, and at least one of nickel and
iron. The Pt concn. in the catalyst is 10-80 at.%. Zn concn. in the
catalyst is 2-70 at.%. The concn. of Ni and/or Fe is 5-80 at%.

IT 599172-39-1P
(fuel cell electrocatalyst contg. platinum, zinc, and iron and/or
nickel)

RN 599172-39-1 ZCA

CN Platinum alloy, base, Pt 70,Fe 19,Zn 11 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Pt	70	7440-06-4
Fe	19	7439-89-6
Zn	11	7440-66-6

IT 599172-39-1P 599172-40-4P 599172-41-5P
599172-42-6P 599172-43-7P 599172-44-8P
599172-45-9P 599172-46-0P 599172-47-1P
599172-48-2P 599172-49-3P 599172-50-6P
599172-51-7P 599172-52-8P 599172-53-9P
599172-54-0P 599172-55-1P 599172-56-2P
599172-57-3P 599172-58-4P 599172-59-5P

599172-60-8P 599172-61-9P 599172-62-0P
 599172-63-1P 599172-64-2P 599172-65-3P
 599172-66-4P 599172-67-5P 599172-68-6P
 599172-69-7P 599172-70-0P 599172-71-1P
 599172-72-2P 599172-73-3P 599172-74-4P
 599172-75-5P 599172-76-6P 599172-77-7P
 599172-78-8P 599172-79-9P 599172-80-2P
 599172-81-3P 599172-82-4P 599172-83-5P
 599172-84-6P 599172-85-7P 599172-86-8P
 599172-87-9P 599172-88-0P 599172-89-1P
 599172-90-4P 599172-91-5P 599172-92-6P
 599172-93-7P 599172-94-8P 599172-95-9P
 599172-96-0P 599172-97-1P 599172-98-2P
 599172-99-3P 599173-00-9P 599173-01-0P
 599173-02-1P 599173-03-2P 599173-04-3P
 599173-05-4P 599173-07-6P 599173-12-3P
 599173-13-4P 599173-15-6P 599173-17-8P
 599173-19-0P 599173-21-4P 599173-23-6P
 599173-26-9P

(fuel cell electrocatalyst contg. platinum, zinc, and iron and/or nickel)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
 RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L26 1-4 BIB ABS HITSTR HITRN

L26 ANSWER 1 OF 4 ZCA COPYRIGHT 2010 ACS on STN
 AN 140:173707 ZCA Full-text
 TI Magnetic recording materials and magnetic recording/regeneration hard disk devices
 IN Kikitsu, Akira; Akiyama, Junichi; Kai, Tadashi; Nagase, Toshihiko; Maeda, Tomoyuki; Aikawa, Naonori; Oikawa, Soichi; Tanaka, Yoichiro
 PA Toshiba Corp., Japan
 SO Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2004039033	A	20040205	JP 2002-191394	20020628
	US 20040053078	A1	20040318	US 2003-607570	20030627
PRAI	JP 2002-191394	A	20020628		

AB The title recording materials are vertical or planar magnetic recording materials prepd. by diamagnetic exchange binding of mutually opposed 1st and 2nd magnetic recording material layers with or without interlayers between the magnetic layers. The diamagnetic exchange binding gives the recording materials decreased noises in low d. regions, improved recording resoln., and increased recording d.

IT 654667-02-4

(magnetic recording layer; magnetic recording materials and
magnetic recording/regeneration hard disk devices)

RN 654667-02-4 ZCA

CN Platinum alloy, base, Pt 76,Fe 22,Zn 2.7 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Pt	76	7440-06-4
Fe	22	7439-89-6
Zn	2.7	7440-66-6

IT 654667-02-4

(magnetic recording layer; magnetic recording materials and
magnetic recording/regeneration hard disk devices)

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L26 ANSWER 2 OF 4 ZCA COPYRIGHT 2010 ACS on STN

AN 139:357230 ZCA Full-text

TI Sputtering targets and magnetic recording media having alloy layers
with L10 structure manufactured using them

IN Fujioka, Naomi; Kikitsu, Akira; Kai, Tadashi; Nagase, Toshihiko;
Maeda, Tomoyuki; Akiyama, Junichi; Aikawa, Naonori; Suzuki, Yukinobu;
Watanabe, Koichi; Watanabe, Takashi; Ishigami, Takashi

PA Toshiba Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003313659	A	20031106	JP 2002-119888	20020422
	JP 4175829	B2	20081105		
PRAI	JP 2002-119888		20020422		

AB The targets with O content ≤ 1000 ppm are ceramics of magnetic alloys contg.
Fe and/or Co and Pt and/or Pd, preferably represented by formula $(Fe_{1-a}Co_a)(Pt_{1-b}Pd_b)_{100-x}$ (a, b = 0-1; x = 30-80 at.%). The alloys may contain
0.1-50 at.% Cu, Au, Ag, Zn, Sn, Mn, Ni, Al, Ti, Hf, Ta, Mo, Nb, W, Cr, V,
In, Re, Ru, Ir, Rh, Sm, Tb, Si, B, SiO, MgO, AlO, ZrO, TiO, SiN, AlN, ZrN,
TiN, BN, SiON, AlON, AlTiOC, and/or InSnO.

IT 618907-68-9, Iron 45, platinum 40, zinc 15 (atomic)

(target; sputtering targets for magnetic recording media having
alloy layers with L10 structure)

RN 618907-68-9 ZCA

CN Platinum alloy, base, Pt 69,Fe 22,Zn 8.7 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Pt	69	7440-06-4

Fe 22 7439-89-6
Zn 8.7 7440-66-6

IT ~~618907-68-98~~, Iron 45, platinum 40, zinc 15 (atomic)
(target; sputtering targets for magnetic recording media having
alloy layers with L10 structure)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L26 ANSWER 3 OF 4 ZCA COPYRIGHT 2010 ACS on STN

AN 137:118444 ZCA Full-text

TI Magnetic recording medium for high-density recording

IN Maeda, Tomoyuki; Kikitsu, Akira; Nagase, Toshihiko; Akiyama, Junichi

PA Kabushiki Kaisha Toshiba, Japan

SO U.S. Pat. Appl. Publ., 26 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 20020098383	A1	20020725	US 2002-50118	20020118
	US 6777078	B2	20040817		
	JP 2002216330	A	20020802	JP 2001-12119	20010119
	JP 3730518	B2	20060105		
PRAI	JP 2001-12119	A	20010119		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A magnetic recording material is claimed which is capable of lowering the
substrate temp. or annealing temp. necessary for forming an intermetallic by
doping the intermetallic. A magnetic recording medium has a substrate, an
underlayer formed on the substrate, a magnetic layer formed on the
underlayer and including crystal grains having an L10 structure mainly
including Fe and Pt, mainly including Fe and Pd, or mainly including Co and
Pt, and the crystal grains further including 0.1 to 50 at percent of at
least one additive element dissolved therein.

IT ~~443655-36-5~~

(annealing effect on order parameter, coercivity and anisotropy of)

RN 443655-36-5 ZCA

CN Iron, compd. with platinum and zinc (47:47:6) (CA INDEX NAME)

Component	Ratio	Component
		Registry Number
=====+	=====+	=====
Zn	6	7440-66-6
Pt	47	7440-06-4
Fe	47	7439-89-6

IT ~~443655-36-5~~

(annealing effect on order parameter, coercivity and anisotropy of)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 4 OF 4 ZCA COPYRIGHT 2010 ACS on STN

AN 116:45112 ZCA Full-text

OREF 116:7705a,7708a

TI Platinum alloys for ornaments and bright blackening of ornaments

IN Takayanagi, Takeshi

PA Agency of Industrial Sciences and Technology, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 03100159	A	19910425	JP 1989-236089	19890912
	JP 05008267	B	19930201		
PRAI	JP 1989-236089		19890912		

AB Ornaments are manufd. from Pt alloys contg. 3-15% Rh and/or Ru and $\leq 15\%$ Pd, Ir, Os, Au, Ag, Cu, and/or Ni, or from Pt alloys contg. Cu, Fe, Co, and/or Ti 3-20, and optionally Zn 0.5-5 and Pd, Rh, Ir, Ru, Os, Au, Ag, and/or Ni $< 15\%$. The ornaments are heated in air or oxidizing atm. at temps. below the m.p. of the alloys and air, water, or oil quenched for bright black finish. Thus, a mixt. of 90 g Pt and 10 g electrolytic Fe was arc melted in Ar and centrifugally investment cast into rings. The rings were polished and heated in air at 900° for 15 min, water quenched, and buffed. The manufd. rings had 3-4 μm bright black layer contg. Pt and Fe₃O₄.

IT ~~138412-52-9~~

(for ornaments, bright blackening of)

RN 138412-52-9 ZCA

CN Platinum alloy, base, Pt 85, Fe 14, Zn 1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Pt	85	7440-06-4
Fe	14	7439-89-6
Zn	1	7440-66-6

IT ~~138412-52-9~~

(for ornaments, bright blackening of)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

(PRETTY JUNKY FROM HERE ON)

=> D L25 1-34 BIB ABS HITSTR HITRN

L25 ANSWER 1 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 151:364301 ZCA Full-text

TI Lead-free solder and soldered article
 IN Hirata, Masahiko; Yoshida, Hisahiko; Nagashima, Takashi; Taguchi,
 Toshihiko; Toyota, Yoshitaka; Onishi, Tsukasa
 PA Senju Metal Industry Co., Ltd., Japan; Panasonic Corporation
 SO Jpn. Tokkyo Koho, 7pp.; Chemical Indexing Equivalent to 140:379029
 (WO)
 CODEN: JTXXFF
 DT Patent
 LA Japanese
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 4337326	B2	20090930	JP 2002-317121	20021031
	JP 2004148372	A	20040527		
	WO 2004039533	A1	20040513	WO 2003-JP13996	20031031
	EP 1557235	A1	20050727	EP 2003-770084	20031031
	US 20060102690	A1	20060518	US 2005-533288	20051103
	US 7282174	B2	20071016		
PRAI	JP 2002-317121	A	20021031		
	WO 2003-JP13996	W	20031031		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A Sn-Zn lead-free solder contg. 5-10 of Zn, 0.005 to 1.0% of ≥ 1 from the
 group consisting of Au, Pt, Pd, Fe and Sb, optionally $\leq 15\%$ of ≥ 1 from Bi and
 In. The solder is free from the exfoliation from a soldered portion of an
 article after an elapse of a long period from the time of soldering, even
 when the soldered portion is made of Cu, and it is used as a solder paste
 using a rosin-based flux contg. a halogen compd. such as an amine-hydrogen
 chloride salt as an activator.

IT ~~683213-41-4~~
 (lead-free solder and soldered article)

RN 683213-41-4 ZCA

CN Tin alloy, base, Sn 55-95, Bi 0-15, In 0-15, Zn 5-10, Au 0-1, Fe 0-1, Pd
 0-1, Pt 0-1, Sb 0-1 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====+
Sn	55 - 95	7440-31-5
Bi	0 - 15	7440-69-9
In	0 - 15	7440-74-6
Zn	5 - 10	7440-66-6
Au	0 - 1	7440-57-5
Fe	0 - 1	7439-89-6
Pd	0 - 1	7440-05-3
Pt	0 - 1	7440-06-4
Sb	0 - 1	7440-36-0

IT ~~683213-41-4~~
 (lead-free solder and soldered article)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L25 ANSWER 2 OF 34 ZCA COPYRIGHT 2010 ACS on STN
 AN 141:57907 ZCA Full-text
 TI Gold alloy dental material for crowns and bridges
 IN Torita, Yasuhiro; Ninomiya, Tsutomu
 PA Shofu Inc., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004169175	A	20040617	JP 2002-375499	20021119
	JP 3983659	B2	20070926		
PRAI	JP 2002-375499		20021119		

AB The alloy contains Au 80-89.6, Pt 10-13, Fe 0.05-2, Zn 0.5-2, Rh 0.05-1, and In 0.1-1% with Zn + Rh being 0.55-3%. The alloy may further contain 0.05-1% Mn, Co, and/or Mo, and 0.01-1% Ag, Ir, Re, and/or Ru.

IT 705298-16-4 705298-17-5 705298-18-6
 705298-19-7 705298-20-0 705298-21-1
 705298-22-2 705298-23-3 705298-25-5
 705298-26-6 705298-28-8 705298-29-9
 705298-31-3 705298-33-5 705298-35-7
 705298-37-9 705298-39-1 705298-40-4
 705298-41-5 705298-42-6 705298-43-7
 705298-44-8 705298-45-9 705298-46-0
 705298-47-1 705298-48-2 705298-49-3
 705298-50-6

(gold alloy dental material for crowns and bridges)

RN 705298-16-4 ZCA

CN Gold alloy, base, Au 87,Pt 11,Zn 1,Fe 0.5,In 0.3,Mo 0.3,Mn 0.2 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	87	7440-57-5
Pt	11	7440-06-4
Zn	1	7440-66-6
Fe	0.5	7439-89-6
In	0.3	7440-74-6
Mo	0.3	7439-98-7
Mn	0.2	7439-96-5

RN 705298-17-5 ZCA

CN Gold alloy, base, Au 86,Pt 12,Zn 1.4,Fe 0.5,In 0.3,Rh 0.2,Mo 0.1 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5

Pt	12	7440-06-4
Zn	1.4	7440-66-6
Fe	0.5	7439-89-6
In	0.3	7440-74-6
Rh	0.2	7440-16-6
Mo	0.1	7439-98-7

RN 705298-18-6 ZCA

CN Gold alloy, base, Au 86,Pt 11,Zn 1,Mo 0.7,Fe 0.3,Ir 0.3,Rh 0.2,In 0.1
(9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1	7440-66-6
Mo	0.7	7439-98-7
Fe	0.3	7439-89-6
Ir	0.3	7439-88-5
Rh	0.2	7440-16-6
In	0.1	7440-74-6

RN 705298-19-7 ZCA

CN Gold alloy, base, Au 86,Pt 11,In 1,Zn 1,Fe 0.3,Ir 0.3 (9CI) (CA INDEX
NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	86	7440-57-5
Pt	11	7440-06-4
In	1	7440-74-6
Zn	1	7440-66-6
Fe	0.3	7439-89-6
Ir	0.3	7439-88-5

RN 705298-20-0 ZCA

CN Gold alloy, base, Au 86,Pt 12,Zn 0.8,Ru 0.5,Rh 0.2,Fe 0.1,In 0.1 (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	86	7440-57-5
Pt	12	7440-06-4
Zn	0.8	7440-66-6
Ru	0.5	7440-18-8
Rh	0.2	7440-16-6
Fe	0.1	7439-89-6
In	0.1	7440-74-6

RN 705298-21-1 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Rh 0.5,Zn 0.5,Fe 0.2,Mn 0.2,In 0.1,Ru 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5
Pt	11	7440-06-4
Rh	0.5	7440-16-6
Zn	0.5	7440-66-6
Fe	0.2	7439-89-6
Mn	0.2	7439-96-5
In	0.1	7440-74-6
Ru	0.1	7440-18-8

RN 705298-22-2 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Zn 1.5,Fe 0.3,Re 0.3,Ir 0.2,In 0.1,Mn 0.1,Rh 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1.5	7440-66-6
Fe	0.3	7439-89-6
Re	0.3	7440-15-5
Ir	0.2	7439-88-5
In	0.1	7440-74-6
Mn	0.1	7439-96-5
Rh	0.1	7440-16-6

RN 705298-23-3 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Zn 1.5,Fe 0.3,Ir 0.2,In 0.1,Mn 0.1,Re 0.1,Rh 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1.5	7440-66-6
Fe	0.3	7439-89-6
Ir	0.2	7439-88-5
In	0.1	7440-74-6
Mn	0.1	7439-96-5
Re	0.1	7440-15-5
Rh	0.1	7440-16-6

RN 705298-25-5 ZCA
 CN Gold alloy, base, Au 85,Pt 12,Zn 2,Re 0.6,Fe 0.3,Ir 0.2,In 0.1,Mn

0.1,Rh 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	85	7440-57-5
Pt	12	7440-06-4
Zn	2	7440-66-6
Re	0.6	7440-15-5
Fe	0.3	7439-89-6
Ir	0.2	7439-88-5
In	0.1	7440-74-6
Mn	0.1	7439-96-5
Rh	0.1	7440-16-6

RN 705298-26-6 ZCA

CN Gold alloy, base, Au 87,Pt 10,Co 1,Zn 1,Fe 0.3,Ir 0.2,In 0.1,Mn 0.1,Rh 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	87	7440-57-5
Pt	10	7440-06-4
Co	1	7440-48-4
Zn	1	7440-66-6
Fe	0.3	7439-89-6
Ir	0.2	7439-88-5
In	0.1	7440-74-6
Mn	0.1	7439-96-5
Rh	0.1	7440-16-6

RN 705298-28-8 ZCA

CN Gold alloy, base, Au 87,Pt 11,Co 0.5,Zn 0.5,Fe 0.3,In 0.2,Ir 0.2,Rh 0.2 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	87	7440-57-5
Pt	11	7440-06-4
Co	0.5	7440-48-4
Zn	0.5	7440-66-6
Fe	0.3	7439-89-6
In	0.2	7440-74-6
Ir	0.2	7439-88-5
Rh	0.2	7440-16-6

RN 705298-29-9 ZCA

CN Gold alloy, base, Au 86,Pt 11,Re 1,Co 0.5,Zn 0.5,Fe 0.2,Ir 0.2,Rh 0.2,In 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
Re	1	7440-15-5
Co	0.5	7440-48-4
Zn	0.5	7440-66-6
Fe	0.2	7439-89-6
Ir	0.2	7439-88-5
Rh	0.2	7440-16-6
In	0.1	7440-74-6

RN 705298-31-3 ZCA

CN Gold alloy, base, Au 86,Pt 11,Zn 1.5,Co 0.5,Fe 0.2,Ir 0.2,Rh 0.2,In 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1.5	7440-66-6
Co	0.5	7440-48-4
Fe	0.2	7439-89-6
Ir	0.2	7439-88-5
Rh	0.2	7440-16-6
In	0.1	7440-74-6

RN 705298-33-5 ZCA

CN Gold alloy, base, Au 86,Pt 11,In 1,Zn 1,Co 0.5,Rh 0.2,Fe 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
In	1	7440-74-6
Zn	1	7440-66-6
Co	0.5	7440-48-4
Rh	0.2	7440-16-6
Fe	0.1	7439-89-6

RN 705298-35-7 ZCA

CN Gold alloy, base, Au 87,Pt 11,Zn 1,Ag 0.5,Fe 0.2,Ir 0.2,Rh 0.2,In 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	87	7440-57-5

Pt	11	7440-06-4
Zn	1	7440-66-6
Ag	0.5	7440-22-4
Fe	0.2	7439-89-6
Ir	0.2	7439-88-5
Rh	0.2	7440-16-6
In	0.1	7440-74-6

RN 705298-37-9 ZCA

CN Gold alloy, base, Au 86,Pt 11,Zn 1,Ag 0.8,Fe 0.2,Ir 0.2,Rh 0.2,In 0.1
(9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1	7440-66-6
Ag	0.8	7440-22-4
Fe	0.2	7439-89-6
Ir	0.2	7439-88-5
Rh	0.2	7440-16-6
In	0.1	7440-74-6

RN 705298-39-1 ZCA

CN Gold alloy, base, Au 87,Pt 11,Zn 1.4,Fe 0.2,Rh 0.2,In 0.1 (9CI) (CA
INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	87	7440-57-5
Pt	11	7440-06-4
Zn	1.4	7440-66-6
Fe	0.2	7439-89-6
Rh	0.2	7440-16-6
In	0.1	7440-74-6

RN 705298-40-4 ZCA

CN Gold alloy, base, Au 86,Pt 11,Zn 1.1,Rh 1,Fe 0.5,Mn 0.2,In 0.1 (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1.1	7440-66-6
Rh	1	7440-16-6
Fe	0.5	7439-89-6
Mn	0.2	7439-96-5
In	0.1	7440-74-6

RN 705298-41-5 ZCA
 CN Gold alloy, base, Au 87,Pt 11,Mn 1,Rh 1,In 0.5,Zn 0.5,Fe 0.2 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	87	7440-57-5
Pt	11	7440-06-4
Mn	1	7439-96-5
Rh	1	7440-16-6
In	0.5	7440-74-6
Zn	0.5	7440-66-6
Fe	0.2	7439-89-6

RN 705298-42-6 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Fe 1.7,Zn 1,In 0.2 (9CI) (CA INDEX
 NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5
Pt	11	7440-06-4
Fe	1.7	7439-89-6
Zn	1	7440-66-6
In	0.2	7440-74-6

RN 705298-43-7 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Zn 1.9,Fe 0.2,In 0.1,Mn 0.1,Rh 0.1 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1.9	7440-66-6
Fe	0.2	7439-89-6
In	0.1	7440-74-6
Mn	0.1	7439-96-5
Rh	0.1	7440-16-6

RN 705298-44-8 ZCA
 CN Gold alloy, base, Au 86,Pt 12,Zn 1,In 0.5,Fe 0.2,Mn 0.1,Rh 0.1 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	86	7440-57-5

Pt	12	7440-06-4
Zn	1	7440-66-6
In	0.5	7440-74-6
Fe	0.2	7439-89-6
Mn	0.1	7439-96-5
Rh	0.1	7440-16-6

RN 705298-45-9 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Ir 1,Zn 1,In 0.5,Mn 0.2,Rh 0.2,Fe 0.1
 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	86	7440-57-5
Pt	11	7440-06-4
Ir	1	7439-88-5
Zn	1	7440-66-6
In	0.5	7440-74-6
Mn	0.2	7439-96-5
Rh	0.2	7440-16-6
Fe	0.1	7439-89-6

RN 705298-46-0 ZCA
 CN Gold alloy, base, Au 86,Pt 11,Zn 1,In 0.5,Ir 0.3,Fe 0.2,Mn 0.2,Rh 0.2
 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1	7440-66-6
In	0.5	7440-74-6
Ir	0.3	7439-88-5
Fe	0.2	7439-89-6
Mn	0.2	7439-96-5
Rh	0.2	7440-16-6

RN 705298-47-1 ZCA
 CN Gold alloy, base, Au 86,Pt 13,Zn 1,In 0.5,Fe 0.2,Mn 0.2,Rh 0.2 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	86	7440-57-5
Pt	13	7440-06-4
Zn	1	7440-66-6
In	0.5	7440-74-6
Fe	0.2	7439-89-6
Mn	0.2	7439-96-5

Rh 0.2 7440-16-6

RN 705298-48-2 ZCA

CN Gold alloy, base, Au 86,Pt 11,Zn 1,In 0.5,Mn 0.5,Rh 0.5,Fe 0.2 (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1	7440-66-6
In	0.5	7440-74-6
Mn	0.5	7439-96-5
Rh	0.5	7440-16-6
Fe	0.2	7439-89-6

RN 705298-49-3 ZCA

CN Gold alloy, base, Au 86,Pt 11,Zn 1,In 0.5,Rh 0.5,Fe 0.2,Mn 0.2 (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	11	7440-06-4
Zn	1	7440-66-6
In	0.5	7440-74-6
Rh	0.5	7440-16-6
Fe	0.2	7439-89-6
Mn	0.2	7439-96-5

RN 705298-50-6 ZCA

CN Gold alloy, base, Au 80-100,Pt 10-13,Zn 0.5-2,Fe 0-2,Ag 0-1,Co 0-1,In
0-1,Ir 0-1,Mn 0-1,Mo 0-1,Re 0-1,Rh 0-1,Ru 0-1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	80 - 100	7440-57-5
Pt	10 - 13	7440-06-4
Zn	0.5 - 2	7440-66-6
Fe	0 - 2	7439-89-6
Ag	0 - 1	7440-22-4
Co	0 - 1	7440-48-4
In	0 - 1	7440-74-6
Ir	0 - 1	7439-88-5
Mn	0 - 1	7439-96-5
Mo	0 - 1	7439-98-7
Re	0 - 1	7440-15-5
Rh	0 - 1	7440-16-6
Ru	0 - 1	7440-18-8

IT 705298-16-4 705298-17-5 705298-18-6
 705298-19-7 705298-20-0 705298-21-1
 705298-22-2 705298-23-3 705298-25-5
 705298-26-6 705298-28-8 705298-29-9
 705298-31-3 705298-33-5 705298-35-7
 705298-37-9 705298-39-1 705298-40-4
 705298-41-5 705298-42-6 705298-43-7
 705298-44-8 705298-45-9 705298-46-0
 705298-47-1 705298-48-2 705298-49-3
 705298-50-6

(gold alloy dental material for crowns and bridges)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L25 ANSWER 3 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 140:379029 ZCA Full-text

TI Lead-free solder and soldered article

IN Hirata, Masahiko; Yoshida, Hisahiko; Nagashima, Takashi

PA Senju Metal Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Taguchi, Toshihiko; Toyoda, Yoshitaka; Ohnishi, Tsukasa

SO PCT Int. Appl., 15 pp., Chemical Indexing Equivalent to 151:364301 (JP)

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2004039533	A1	20040513	WO 2003-JP13996	20031031
	JP 4337326	B2	20090930	JP 2002-317121	20021031
	JP 2004148372	A	20040527		
	EP 1557235	A1	20050727	EP 2003-770084	20031031
	US 20060102690	A1	20060518	US 2005-533288	20051103
	US 7282174	B2	20071016		
PRAI	JP 2002-317121	A	20021031		
	WO 2003-JP13996	W	20031031		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A Sn-Zn lead-free solder contg. 5-10 of Zn, 0.005 to 1.0% of ≥ 1 from the group consisting of Au, Pt, Pd, Fe and Sb, optionally $\leq 15\%$ of ≥ 1 from Bi and In. The solder is free from the exfoliation from a soldered portion of an article after an elapse of a long period from the time of soldering, even when the soldered portion is made of Cu, and it is used as a solder paste using a rosin-based flux contg. a halogen compd. such as an amine-hydrogen chloride salt as an activator.

IT ~~683213-41-4~~

(lead-free solder and soldered article)

RN 683213-41-4 ZCA

CN Tin alloy, base, Sn 55-95, Bi 0-15, In 0-15, Zn 5-10, Au 0-1, Fe 0-1, Pd 0-1, Pt 0-1, Sb 0-1 (CA INDEX NAME)

Component Component Component

	Percent			Registry Number
=====+=====+=====				
Sn	55	-	95	7440-31-5
Bi	0	-	15	7440-69-9
In	0	-	15	7440-74-6
Zn	5	-	10	7440-66-6
Au	0	-	1	7440-57-5
Fe	0	-	1	7439-89-6
Pd	0	-	1	7440-05-3
Pt	0	-	1	7440-06-4
Sb	0	-	1	7440-36-0

IT 683213-41-4

(lead-free solder and soldered article)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 4 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 140:63231 ZCA Full-text

TI Au-Ag-Cu alloy of 14-karat type having yellow color, reversible hardness, and fine-grained microstructure

IN Agarwal, Dwarika P.; Raykhtsaum, Grigory

PA Leach & Garner Company, USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 6676776	B1	20040113	US 2002-223971	20020820
PRAI	US 2002-223971		20020820		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The 14-karat Au alloy for jewelry having yellow color and reversible hardness contains about Au 58.65, Ag 11.5-25.0, Cu 11.85-23.35, and Zn 2-7% by wt. The Cu/Ag content ratio is preferably 0.6-2. The Au-Ag-Cu alloy preferably includes grain-refining addn. selected from Co 0.2-0.5, Pt 0.1-0.3, and/or Fe 0.1-0.3%. The alloy has Vickers microhardness ≥ 140 after annealing for 0.5 h at 1150° F followed by quenching, or ≥ 240 after age hardening for 1 h at 600° F followed by cooling to room temp. The typical Au alloy having the annealed microhardness of 155, the aged microhardness of 250, and enhanced yellow color contains Au 58.65, Ag 11.5, Cu 22.75, Zn 6.5, Co 0.2, Pt 0.2, and Fe 0.2%.

IT 639487-39-1 639487-41-5 639487-57-3
639487-59-5 639487-61-9 639487-63-1
639487-66-4

(jewelry alloy; Au-Ag-Cu alloy for 14-karat jewelry with yellow color and fine-grained structure)

RN 639487-39-1 ZCA

CN Gold alloy, base, Au 59, Ag 25, Cu 14, Zn 2, Co 0.2, Fe 0.1, Pt 0.1 (9CI)

(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	59	7440-57-5
Ag	25	7440-22-4
Cu	14	7440-50-8
Zn	2	7440-66-6
Co	0.2	7440-48-4
Fe	0.1	7439-89-6
Pt	0.1	7440-06-4

RN 639487-41-5 ZCA

CN Gold alloy, base, Au 59,Ag 19,Cu 19,Zn 3,Co 0.2,Fe 0.1,Pt 0.1 (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	59	7440-57-5
Ag	19	7440-22-4
Cu	19	7440-50-8
Zn	3	7440-66-6
Co	0.2	7440-48-4
Fe	0.1	7439-89-6
Pt	0.1	7440-06-4

RN 639487-57-3 ZCA

CN Gold alloy, base, Au 59,Cu 23,Ag 12,Zn 6.5,Fe 0.1,Pt 0.1 (9CI) (CA
INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	59	7440-57-5
Cu	23	7440-50-8
Ag	12	7440-22-4
Zn	6.5	7440-66-6
Fe	0.1	7439-89-6
Pt	0.1	7440-06-4

RN 639487-59-5 ZCA

CN Gold alloy, base, Au 59,Cu 23,Ag 12,Zn 6.5,Fe 0.2,Pt 0.2 (9CI) (CA
INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	59	7440-57-5
Cu	23	7440-50-8
Ag	12	7440-22-4

Zn	6.5	7440-66-6
Fe	0.2	7439-89-6
Pt	0.2	7440-06-4

RN 639487-61-9 ZCA
 CN Gold alloy, base, Au 59,Cu 23,Ag 12,Zn 6.5,Fe 0.3,Pt 0.3 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	59	7440-57-5
Cu	23	7440-50-8
Ag	12	7440-22-4
Zn	6.5	7440-66-6
Fe	0.3	7439-89-6
Pt	0.3	7440-06-4

RN 639487-63-1 ZCA
 CN Gold alloy, base, Au 59,Cu 23,Ag 12,Zn 6.5,Co 0.2,Fe 0.1,Pt 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	59	7440-57-5
Cu	23	7440-50-8
Ag	12	7440-22-4
Zn	6.5	7440-66-6
Co	0.2	7440-48-4
Fe	0.1	7439-89-6
Pt	0.1	7440-06-4

RN 639487-66-4 ZCA
 CN Gold alloy, base, Au 59,Cu 23,Ag 12,Zn 6.5,Co 0.2,Fe 0.2,Pt 0.2 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	59	7440-57-5
Cu	23	7440-50-8
Ag	12	7440-22-4
Zn	6.5	7440-66-6
Co	0.2	7440-48-4
Fe	0.2	7439-89-6
Pt	0.2	7440-06-4

IT 639487-39-1 639487-41-5 639487-57-3
 639487-59-5 639487-61-9 639487-63-1
 639487-66-4
 (jewelry alloy; Au-Ag-Cu alloy for 14-karat jewelry with yellow

color and fine-grained structure)
 OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
 RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 5 OF 34 ZCA COPYRIGHT 2010 ACS on STN
 AN 139:41694 ZCA Full-text
 TI Multiple parameter cytotoxicity index on dental alloys and pure metals
 AU Hornez, J. C.; Lefevre, A.; Joly, D.; Hildebrand, H. F.
 CS Faculte de Medecine, UPRES EA 1049, Groupe de Recherche sur les
 Biomateriaux, Lille, F-59045, Fr.
 SO Biomolecular Engineering (2002), 19(2-6), 103-117
 CODEN: BIENFV; ISSN: 1389-0344
 PB Elsevier Science B.V.
 DT Journal
 LA English
 AB Palladium (Pd) is a metal frequently used for dental alloys. In order to
 elucidate controversial options about Pd concerning its biol. performances,
 our study consists in the evaluation of com. and exptl. PFM and C&B precious
 and semi-precious dental alloys. This investigation was also designated to
 the establishment of a cytotoxicity index (CI) such as it was described for
 hemocompatibility testing. The following materials were tested: 36 com.
 alloys (Au-, Pd- and Ag-base), 14 exptl. alloys (Pd-base established by an
 experience plan) and pure metals (Ag, Au, Cu, Ni, Cr, In, Sn, Pt, Ti, Zn).
 The cells culture expts. were carried out with epithelial L132 cells and NIH
 3T3 fibroblasts. In vitro cell viability tests show that Pt, Sn, In, Ti, Au
 and Pd have no cytotoxic effect; Cr, Cu and Ag are toxic, Ni, Zn, and Co are
 highly toxic. An identical ranking was found with the inflammatory and
 proliferation tests. Toxic and highly toxic metals induced slight or strong
 prosthetic dental restoration morphol. alterations after 3-days cultures and
 mostly cell death after 6-days cultures. These effects are dependent on the
 leakage of the element into the culture medium as revealed by ICP. The
 addn. of Au gives benefit to Pd-Ag alloys, but does not produce any major
 effect on Pd-Cu alloys. This qual. ranking can quant. be confirmed by
 cytocompatibility testing after application of a CI.
 IT 544454-78-6, EC 930 BIO 544454-80-0, EC 950
 544454-94-6, EC 860 BIO 544455-00-7, EC 660 BIO
 544455-01-8, EC 410 544455-02-9, EC 420
 (multiple parameter cytotoxicity index on dental alloys and pure
 metals)
 RN 544454-78-6 ZCA
 CN Gold alloy, base, Au,Ag,Fe,Ir,Pt,Rh,Ru,Ti,Zn (EC 930 BIO) (9CI) (CA
 INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	79	7440-57-5
Pt	16	7440-06-4
Zn	2.1	7440-66-6
Ag	2	7440-22-4
Fe	0 - 0.5	7439-89-6

Ir	0	-	0.5	7439-88-5
Rh	0	-	0.5	7440-16-6
Ru	0	-	0.5	7440-18-8
Ti	0	-	0.5	7440-32-6

RN 544454-80-0 ZCA

CN Gold alloy, base, Au,Ag,Cu,Fe,In,Ir,Pt,Rh,Ru,Ti,Zn (EC 950) (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	70	7440-57-5
Ag	10	7440-22-4
Pt	9.5	7440-06-4
Cu	4	7440-50-8
In	3	7440-74-6
Zn	3	7440-66-6
Fe	0 - 0.5	7439-89-6
Ir	0 - 0.5	7439-88-5
Rh	0 - 0.5	7440-16-6
Ru	0 - 0.5	7440-18-8
Ti	0 - 0.5	7440-32-6

RN 544454-94-6 ZCA

CN Gold alloy, base, Au,Ag,Cu,Fe,Ir,Pt,Rh,Ru,Ti,Zn (EC 860 BIO) (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	71	7440-57-5
Ag	13	7440-22-4
Cu	12	7440-50-8
Pt	3.5	7440-06-4
Zn	0.5	7440-66-6
Fe	0 - 0.1	7439-89-6
Ir	0 - 0.1	7439-88-5
Rh	0 - 0.1	7440-16-6
Ru	0 - 0.1	7440-18-8
Ti	0 - 0.1	7440-32-6

RN 544455-00-7 ZCA

CN Gold alloy, base, Au,Ag,Fe,In,Ir,Pt,Rh,Ru,Ti,Zn (EC 660 BIO) (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	60	7440-57-5
Ag	31	7440-22-4
Pt	5	7440-06-4

In	2.5	7440-74-6
Zn	2	7440-66-6
Fe	0 - 0.4	7439-89-6
Ir	0 - 0.4	7439-88-5
Rh	0 - 0.4	7440-16-6
Ru	0 - 0.4	7440-18-8
Ti	0 - 0.4	7440-32-6

RN 544455-01-8 ZCA

CN Silver alloy, base, Ag,Au,Cu,Fe,Ir,Pd,Pt,Rh,Ru,Ti,Zn (EC 410) (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Ag	40	7440-22-4
Au	22	7440-57-5
Pd	22	7440-05-3
Pt	7.5	7440-06-4
Cu	6	7440-50-8
Zn	1	7440-66-6
Fe	0 - 0.5	7439-89-6
Ir	0 - 0.5	7439-88-5
Rh	0 - 0.5	7440-16-6
Ru	0 - 0.5	7440-18-8
Ti	0 - 0.5	7440-32-6

RN 544455-02-9 ZCA

CN Silver alloy, base, Ag,Au,Cu,Fe,Ir,Pd,Pt,Rh,Ru,Ti,Zn (EC 420) (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Ag	54	7440-22-4
Pd	22	7440-05-3
Au	10	7440-57-5
Pt	10	7440-06-4
Cu	2	7440-50-8
Zn	1	7440-66-6
Fe	0 - 0.5	7439-89-6
Ir	0 - 0.5	7439-88-5
Rh	0 - 0.5	7440-16-6
Ru	0 - 0.5	7440-18-8
Ti	0 - 0.5	7440-32-6

IT 544454-78-6, EC 930 BIO 544454-80-0, EC 950

544454-94-6, EC 860 BIO 544455-00-7, EC 660 BIO

544455-01-8, EC 410 544455-02-9, EC 420

(multiple parameter cytotoxicity index on dental alloys and pure metals)

OSC.G 33 THERE ARE 33 CAPLUS RECORDS THAT CITE THIS RECORD (33

CITINGS)

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 6 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 137:204759 ZCA Full-text

TI White gold alloys for ornaments

IN Suzuki, Tetsuyoshi; Tanaka, Yoshiaki

PA Ijima Kingin Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002256360	A	20020911	JP 2001-107806	20010301
PRAI	JP 2001-107806		20010301		
AB	White gold alloys for ornaments contain Au 70-92, Fe 8-30 and/or Cr 8-30%, and optionally Pd 0.05-5, Pt 0.05-20, Ru 0.05-3, Rh 0.05-5, Ir 0.05-3, Co 0.05-5, Mn 0.05-5, Ag 0.05-15, Cu 0.05-15, Zn 0.05-10, In 0.05-10, and/or Ga 0.05-10%. The white gold alloys do not cause metal allergy and are used for ornaments such as ear rings.				
IT	454252-67-6 (allergy-free white gold alloys for ornaments)				
RN	454252-67-6 ZCA				
CN	Gold alloy, base, Au 70-92, Cr 0-25, Fe 0-25, Pt 0-20, Ag 0-15, Cu 0-15, Ga 0-10, In 0-10, Zn 0-10, Co 0-5, Mn 0-5, Pd 0-5, Ir 0-3, Rh 0-3, Ru 0-3 (9CI) (CA INDEX NAME)				

Component	Component Percent	Component Registry Number
Au	70 - 92	7440-57-5
Cr	0 - 25	7440-47-3
Fe	0 - 25	7439-89-6
Pt	0 - 20	7440-06-4
Ag	0 - 15	7440-22-4
Cu	0 - 15	7440-50-8
Ga	0 - 10	7440-55-3
In	0 - 10	7440-74-6
Zn	0 - 10	7440-66-6
Co	0 - 5	7440-48-4
Mn	0 - 5	7439-96-5
Pd	0 - 5	7440-05-3
Ir	0 - 3	7439-88-5
Rh	0 - 3	7440-16-6
Ru	0 - 3	7440-18-8

IT ~~454252-67-6~~
(allergy-free white gold alloys for ornaments)

L25 ANSWER 7 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 136:268230 ZCA Full-text

TI Burning-on-compatible dental alloy with a high gold content

IN Kangping, Guo-Han; Baltzer, Niklaus

PA Cendres et Metaux S.A., Switz.

SO Eur. Pat. Appl., 5 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 1193320	A1	20020403	EP 2001-122702	20010921
	EP 1193320	B1	20050316		
	AT 291103	T	20050415	AT 2001-122702	20010921
	ES 2239085	T3	20050916	ES 2001-122702	20010921
	JP 2002129252	A	20020509	JP 2001-305401	20011001
PRAI	CH 2000-1917	A	20000929		

AB Burning-on-compatible dental alloy consists of Au 80-86.5, Pt 7.1-13, Pd 0.1-8, Ag 0-1.2, Zn 0.7-3.5, Fe 0-1, Ir 0-1, Ru 0-1, Rh 0-1, Ta 0-1, Mn 0-1, Re 0-1, Nb 0-1, Sn 0-3.5, In 0-3.5, Ga 0-3.5, and optionally Cu 0-0.5 wt.%. The dental alloy has a high strength, a good biocompatibility, and a high mech. resistance even after burning-on of both refractory and having a reduced burning temp. ceramics.

IT ~~404886-14-2~~ ~~404886-15-3~~

(burning-on-compatible dental alloy with a high gold content)

RN 404886-14-2 ZCA

CN Gold alloy, base, Au 80-86, Pt 7.1-13, Pd 0.1-8, Zn 0.7-3.5, Ga 0-3.5, In 0-3.5, Sn 0-3.5, Ag 0-1.2, Fe 0-1, Ir 0-1, Mn 0-1, Nb 0-1, Re 0-1, Rh 0-1, Ru 0-1, Ta 0-1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
-----------	----------------------	------------------------------

Au	80 - 86	7440-57-5
Pt	7.1 - 13	7440-06-4
Pd	0.1 - 8	7440-05-3
Zn	0.7 - 3.5	7440-66-6
Ga	0 - 3.5	7440-55-3
In	0 - 3.5	7440-74-6
Sn	0 - 3.5	7440-31-5
Ag	0 - 1.2	7440-22-4
Fe	0 - 1	7439-89-6
Ir	0 - 1	7439-88-5
Mn	0 - 1	7439-96-5
Nb	0 - 1	7440-03-1
Re	0 - 1	7440-15-5
Rh	0 - 1	7440-16-6
Ru	0 - 1	7440-18-8
Ta	0 - 1	7440-25-7

RN 404886-15-3 ZCA

CN Gold alloy, base, Au 80-86, Pt 7.1-13, Pd 0.1-8, Zn 0.7-3.5, Ga 0-3.5, In 0-3.5, Sn 0-3.5, Ag 0-1.2, Fe 0-1, Ir 0-1, Mn 0-1, Nb 0-1, Re 0-1, Rh 0-1, Ru 0-1, Ta 0-1, Cu 0-0.5 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	80 - 86	7440-57-5
Pt	7.1 - 13	7440-06-4
Pd	0.1 - 8	7440-05-3
Zn	0.7 - 3.5	7440-66-6
Ga	0 - 3.5	7440-55-3
In	0 - 3.5	7440-74-6
Sn	0 - 3.5	7440-31-5
Ag	0 - 1.2	7440-22-4
Fe	0 - 1	7439-89-6
Ir	0 - 1	7439-88-5
Mn	0 - 1	7439-96-5
Nb	0 - 1	7440-03-1
Re	0 - 1	7440-15-5
Rh	0 - 1	7440-16-6
Ru	0 - 1	7440-18-8
Ta	0 - 1	7440-25-7
Cu	0 - 0.5	7440-50-8

IT 404886-14-2 404886-15-3

(burning-on-compatible dental alloy with a high gold content)

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 8 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 136:123722 ZCA Full-text

TI Dental alloy with high gold content

IN Trampert, Klaus Dieter; Huthmacher, Andreas

PA Trampert Dental G.m.b.H., Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10033445	A1	20020124	DE 2000-10033445	20000710
PRAI	DE 2000-10033445		20000710		

AB The invention concerns dental alloys that contain up to 95% gold and are used for the prepn. of bridges, crowns etc. Typical alloys contain:
Palladium (Pd) 0-90%; Silver (Ag) 0-30%; Platinum (Pt) 0-20%; Copper (Cu) 0-20%; Cobalt (Co) 0-10%; Tin (Sn) 0-20%; Zinc (Zn) 0,20%; Indium (In) 0-20%; Gallium (Ga) 0-20%; Manganese (Mn) 0-20%; Ruthenium (Ru) 0-10%; Rhenium (Re) 0-10%; Iridium (Ir) 0-10%; Germanium (Ge) 0-10 %; iron (Fe) 0-10%; Niobium

(Nb) 0-10%; Rhodium (Rh) 0-10%; Tungsten (W) 0-10%; Titanium (Ti) 0-10%;
Tantalum (Ta) 0-10%.

IT 391228-54-9 391230-81-2

(dental alloy with high gold content)

RN 391228-54-9 ZCA

CN Palladium alloy, base, Pd 0-90, Ag 0-30, Cu 0-20, Ga 0-20, In 0-20, Mn
0-20, Pt 0-20, Sn 0-20, Zn 0-20, Co 0-10, Fe 0-10, Ge 0-10, Ir 0-10, Nb
0-10, Re 0-10, Rh 0-10, Ru 0-10, Ta 0-10, Ti 0-10, W 0-10 (9CI) (CA INDEX
NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 391230-81-2 ZCA

CN Gold alloy, base, Au 13-92, Pd 15-85, Ag 5-65, Pt 0.1-25, Co 2-20, Cu
2-20, In 0.1-20, Ga 0.1-10, Ti 0.1-10, Zn 0.5-5, Mn 0.1-5, Nb 0.1-5, Re
0.1-5, Rh 0.1-5, Ru 0.1-5, Sn 0.1-5, Ta 0.1-5, W 0.1-5, Ge 0.1-2, Fe 0-2, Ir
0-2 (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 391228-54-9 391230-81-2

(dental alloy with high gold content)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L25 ANSWER 9 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 135:85618 ZCA Full-text

TI Composite material, production of the material, and printed circuit
board obtained from the material

IN Cubero Pitel, Jose Antonio

PA Lear Automotive (EEDS) Spain, S.L., Spain

SO PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DT Patent

LA Spanish

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2001050822	A1	20010712	WO 1999-ES412	19991230
PRAI	WO 1999-ES412		19991230		

AB The material comprises a rigid dielec. substrate that is fitted on at least
one of its faces with a conductive metal coating that can be partially or
selectively eliminated to form conductive tracks. The metal coating is
formed by an inner layer made of an aluminum alloy and a copper outer layer.
The aluminum alloy layer is thicker than the copper layer so that the metal
coating as a whole has thermal and elec. properties similar to those of an
equiv. thick copper layer with up to 2.5 times less d. The Al alloy compn.
preferably contains Si 0.130, Mn 0.002, Cu 0.002, Ti 0.006, Zn 0.004, Fe
0.610, Mg 0.002% and balance Al. Both the inner layer and the outer layer
are obtained by electrolytic growth on the substrate. The printed circuit
board obtained is also claimed.

IT 347840-30-6

(composite material including aluminum alloy layer for thin printed
circuit boards)

RN 347840-30-6 ZCA

CN Aluminum alloy, base, Al 95-100, Ag 0-5, Au 0-5, Be 0-5, Cd 0-5, Cr 0-5, Cu
0-5, Fe 0-5, Ga 0-5, In 0-5, Mg 0-5, Ni 0-5, Pt 0-5, Sb 0-5, Sn 0-5, Ti 0-5, Zn

0-5 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Al	95 - 100	7429-90-5
Ag	0 - 5	7440-22-4
Au	0 - 5	7440-57-5
Be	0 - 5	7440-41-7
Cd	0 - 5	7440-43-9
Cr	0 - 5	7440-47-3
Cu	0 - 5	7440-50-8
Fe	0 - 5	7439-89-6
Ga	0 - 5	7440-55-3
In	0 - 5	7440-74-6
Mg	0 - 5	7439-95-4
Ni	0 - 5	7440-02-0
Pt	0 - 5	7440-06-4
Sb	0 - 5	7440-36-0
Sn	0 - 5	7440-31-5
Ti	0 - 5	7440-32-6
Zn	0 - 5	7440-66-6

IT 347840-30-6

(composite material including aluminum alloy layer for thin printed circuit boards)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 10 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 131:134582 ZCA Full-text

TI Thermal creep analysis of noble metal alloys for the ceramic-fused-to-metal technique

AU Fischer, J.; Baltzer, N.; Fleetwood, P. W.

CS Department of Removable Prosthodontics, School of Dental Medicine, University of Berne, Bern, Switz.

SO Journal of Biomedical Materials Research (1999), 48(3), 258-264

CODEN: JBMRBG; ISSN: 0021-9304

PB John Wiley & Sons, Inc.

DT Journal

LA English

AB Distortion of metal frameworks for the ceramic fused to metal technique during firing is attributed to thermal creep of the alloys. Usually thermal creep measurements are performed at const. load and const. temp. over varying time periods. Because metal frameworks for the ceramic-fused-to-metal technique are cyclically stressed, a 3-point bending test for dynamic measurement of creep in a modified dilatometer was developed. Bending of 14 com. available noble metal alloys was detd. in the as-cast state, as well as after simulation of the firing process. The sag at 950°, which is the firing temp. of the ceramic, was chosen as an indicator for creep. No correlation of this value to other tech. data of the alloys was obsd., but

it was found that sag correlates with the sum of the Au and Ag content of the alloys. A strong sag was obsd. with high (Au + Ag) content. The lowest sag values were found with a content in the range of 50 atom % (Au + Ag). At lower (Au + Ag) content Pd becomes the main component in the alloys, and the values for sag increased slightly. The method for dynamic measurement of creep gave reproducible results and offers a possible test for rapid qual. creep assessment.

IT 233770-39-3, Esteticor Ideal H
 (thermal creep anal. of noble metal alloys for
 ceramic-fused-to-metal technique)
 RN 233770-39-3 ZCA
 CN Gold alloy, base, Au,Ag,Cu,Fe,In,Ir,Pd,Pt,Zn (Esteticor Ideal H) (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	86	7440-57-5
Pt	9.9	7440-06-4
Pd	1.5	7440-05-3
In	1.1	7440-74-6
Cu	0.8	7440-50-8
Zn	0.5	7440-66-6
Ag	0.4	7440-22-4
Fe	0.2	7439-89-6
Ir	0.1	7439-88-5

IT 233770-39-3, Esteticor Ideal H
 (thermal creep anal. of noble metal alloys for
 ceramic-fused-to-metal technique)
 OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
 RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 11 OF 34 ZCA COPYRIGHT 2010 ACS on STN
 AN 130:32194 ZCA Full-text
 TI Heteropolymetallic compounds containing
 1,1'-bis(diphenylphosphino)ferrocene (DPPF) and pyrazolate ligands:
 synthesis, spectroscopic characterization and reactivity. Crystal and
 molecular structure of [(DPPF)Pt(az)₂] [azH = pyrazole (pzH) or
 3,5-dimethylpyrazole] and [(DPPF)Pt(μ -pz)₂CdI₂]
 AU Pettinari, Claudio; Marchetti, Fabio; Cingolani, Augusto; Troyanov,
 Sergei I.; Drozdov, Andrei
 CS Dipartimento di Scienze Chimiche, Universita degli Studi, Camerino,
 62032, Italy
 SO Journal of the Chemical Society, Dalton Transactions: Inorganic
 Chemistry (1998), (19), 3335-3342
 CODEN: JC DTBI; ISSN: 0300-9246
 PB Royal Society of Chemistry
 DT Journal
 LA English

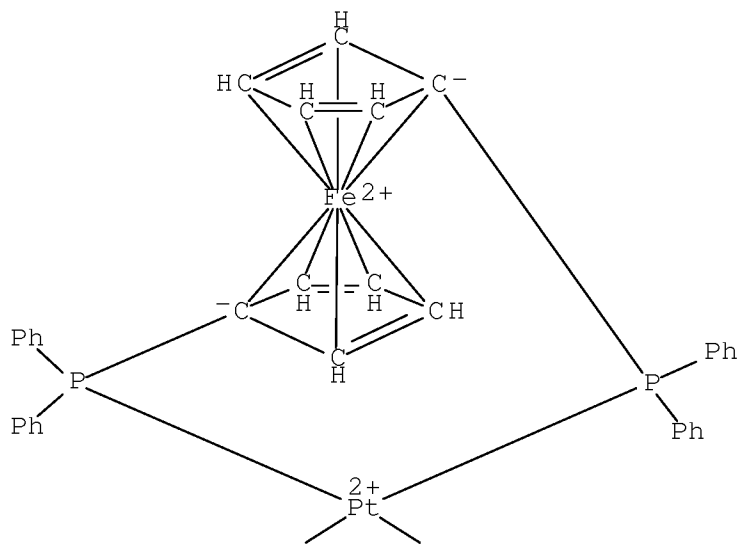
AB From the interaction between [(DPPF)Pt(az)2] [DPPF = 1,1'-bis(diphenylphosphino)ferrocene; azH = pyrazole (pzH), 3,5-dimethylpyrazole (3,5-Me2pzH) or 4-methylpyrazole (4-MepzH)] and several MX2 acceptors (M = Zn, X = Cl, Br, I or BF4; M = Cd, X = Cl, Br, I or ClO4, M = Hg, X = Cl, Br or I; M = Ba, X = I) 16 novel heteropolymetallic compds. were synthesized and characterized by IR, far-IR, 1H and 31P, and in some cases also with 113Cd, NMR spectroscopy. Heterotrinnuclear [(DPPF)Pt(μ -az)2MX2] were obtained when X = halide, whereas ionic heteropentannuclear complexes [{(DPPF)Pt(μ 2-az)2}2M]+[X]2- were afforded when X is a weak nucleophile (ClO4 or BF4). Scrambling of the ligands occurred when the reaction between [(DPPF)Pt(az)2] and Cu(II)X2 salts (X = Cl or Br) was carried out in methanol, [(DPPF)PtX2] being always obtained. X-ray crystallog. confirms the mononuclear structure of [(DPPF)Pt(az)2] (azH = pyrazole or 3,5-methylpyrazole), in which the Pt atom is in a distorted cis square planar coordination with the two cyclopentadienyl rings in a staggered conformation. In the heterotrinnuclear [(DPPF)Pt(μ -pz)2CdI2], the cadmium atom is strongly distorted tetrahedral, coordinated by two N-atoms of pyrazolate rings and two iodine atoms.

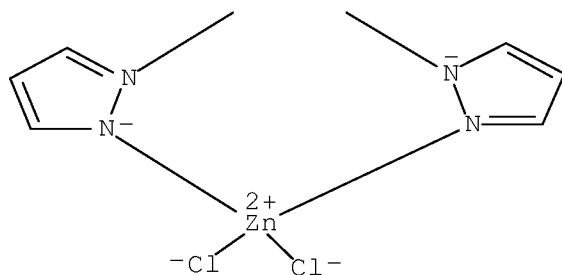
IT 216388-08-8P 216388-09-9P 216388-32-8P
(prepn. of)

RN 216388-08-8 ZCA

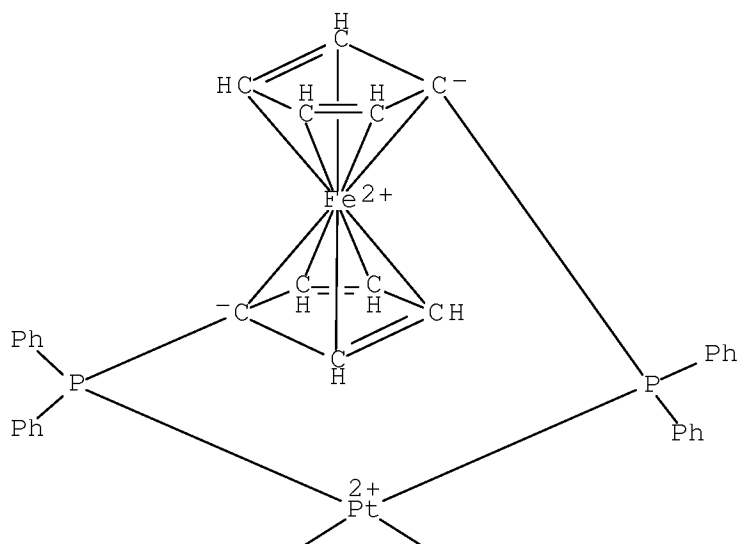
CN Platinum, [1,1'-bis(diphenylphosphino)- κ P)ferrocene] (dichlorozinc)bis[μ -(1H-pyrazolato- κ N1: κ N2)]- (9CI) (CA INDEX NAME)

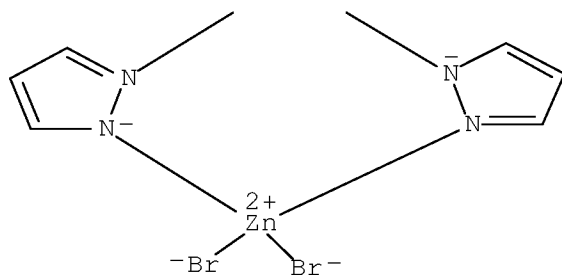
PAGE 1-A





RN 216388-09-9 ZCA
 CN Platinum, [1,1'-bis(diphenylphosphino-
 κ P)ferrocene] (dibromozinc)bis[μ -(1H-pyrazolato-
 κ N1: κ N2)]- (9CI) (CA INDEX NAME)

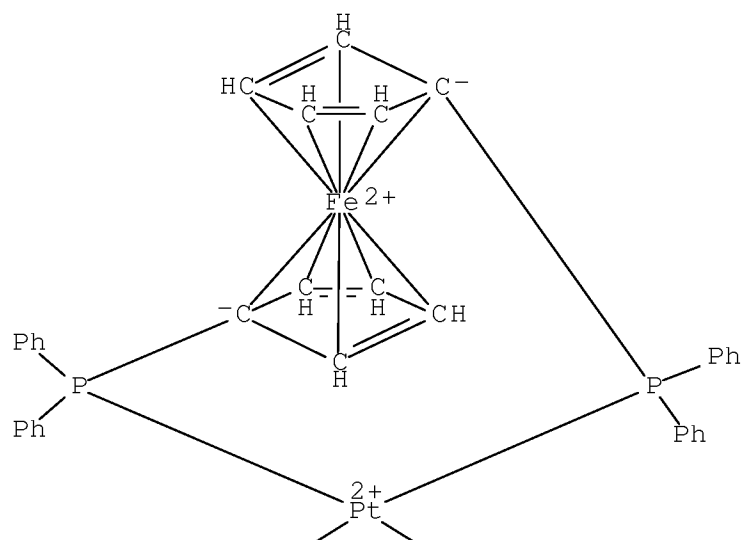


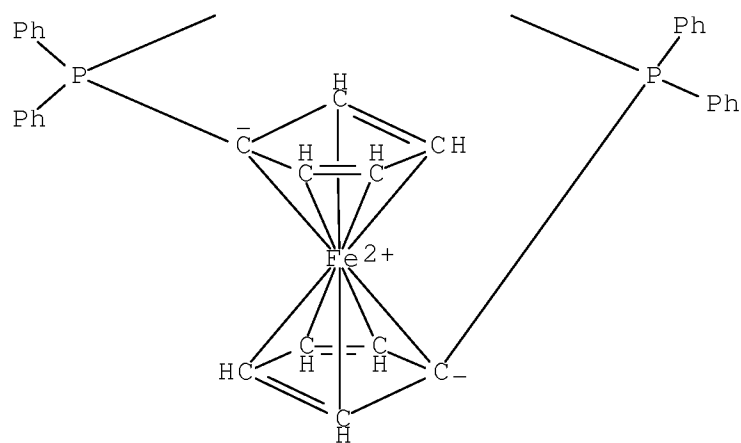
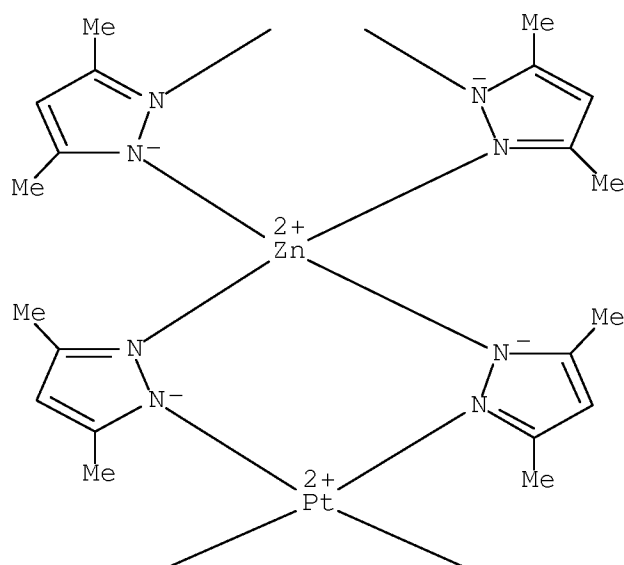


RN 216388-32-8 ZCA
 CN Platinum(2+), bis[1,1'-bis(diphenylphosphino-
 κP)ferrocene]tetrakis[μ-(3,5-dimethyl-1H-pyrazolato-
 κN1:κN2)](zinc)di-, bis[tetrafluoroborate(1-)] (9CI) (CA
 INDEX NAME)

CM 1

CRN 216388-31-7
 CMF C88 H84 Fe2 N8 P4 Pt2 Zn
 CCI CCS



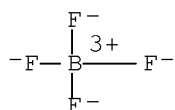


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IT 216388-08-8P 216388-09-9P 216388-32-8P

(prepn. of)

OSC.G 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20 CITINGS)

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 12 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 129:70328 ZCA Full-text

OREF 129:14531a,14534a

TI Mechanisms of electrode degradation when spot welding coated steels

AU Parker, J. D.; Williams, N. T.; Holliday, R. J.

CS Department of Materials Engineering, University of Wales Swansea,
Singleton Park, Swansea, SA2 8PP, UK

SO Science and Technology of Welding and Joining (1998), 3(2),
65-74

CODEN: STWJFX; ISSN: 1362-1718

PB Institute of Materials

DT Journal

LA English

AB The study compares the behavior of pptn.-hardened and dispersion-strengthened Cu alloy electrodes during the manuf. of resistance spot welds in galvanized steel sheet. The primary mechanism causing the failure of spot welding electrodes was growth of the electrode tip. Under normal welding conditions, electrode tip growth was primarily dependent on local alloying morphol. so that deterioration was mainly a function of the type of coating present on the steel. However, welding at high current with current-stepping programs extends electrode performance such that softening became a more dominant electrode degrdn. mechanism. Under these conditions, use of dispersion strengthened alloys extends the electrode campaign life.

IT 208932-49-4, Aluminum 0.4, iron 0.6, platinum 0.1, zinc 99
(coating; mechanisms of copper alloy electrode degrdn. when spot welding of galvanized steels)

RN 208932-49-4 ZCA

CN Zinc alloy, base, Zn 99,Fe 0.6,Al 0.4,Pt 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Zn	99	7440-66-6
Fe	0.6	7439-89-6
Al	0.4	7429-90-5
Pt	0.1	7440-06-4

IT 208932-49-4, Aluminum 0.4, iron 0.6, platinum 0.1, zinc 99
(coating; mechanisms of copper alloy electrode degrdn. when spot
welding of galvanized steels)

OSC.G 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11
CITINGS)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 13 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 127:351286 ZCA Full-text

OREF 127:68785a,68788a

TI Dental alloy system with high gold content

PA Werner, Harald, Germany

SO Ger. Offen., 4 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 19615642	A1	19971030	DE 1996-19615642	19960421
	DE 19615642	C2	19980409		
PRAI	DE 1996-19615642		19960421		

AB Au-based dental alloys and solders with adequate corrosion resistance and
suitable tech. properties, which in addn. are nontoxic and nonallergenic,
contain Au, Pt, Ag, Rh, Cu, Zn, and Fe in precisely defined proportions. A
suitable alloy contg. Au 87.3, Pt 9.9, Ag 0.5, Zn 1.5, Rh 0.5, and Fe 0.3
parts m. 1040-1120° and had a Vickers hardness of 200. A solder, m. 740°,
contained Au 75.0, Ag 10.3, Cu 3.5, and Zn 11.2 parts.

IT 198141-31-0

(dental alloy system with high gold content)

RN 198141-31-0 ZCA

CN Gold alloy, base, Au 87,Pt 9.9,Zn 1.5,Ag 0.5,Rh 0.5,Fe 0.3 (9CI) (CA
INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	87	7440-57-5
Pt	9.9	7440-06-4
Zn	1.5	7440-66-6
Ag	0.5	7440-22-4
Rh	0.5	7440-16-6
Fe	0.3	7439-89-6

IT 198141-31-0

(dental alloy system with high gold content)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 14 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 127:140523 ZCA Full-text

OREF 127:27013a,27016a
 TI Corrosion behavior of six PMF alloys after surface treatment
 AU Pfeiffer, P.; Kang-Lee, H. Y.; Schwickerath, H.
 CS Klinik Poliklinik Zahn-, Mund-, Kieferheilkunde, Universitat Koln,
 Cologne, D-50931, Germany
 SO Deutsche Zahnaerztliche Zeitschrift (1997), 52(5), 347-350
 CODEN: DZZEA7; ISSN: 0012-1029
 PB Hanser
 DT Journal
 LA German
 AB The effects of porcelain firing, grinding (simulation and attrition), and
 polishing (simulation and mastication) on the corrosion behavior of dental
 alloys were investigated. After the ceramic firing process, the concn. of
 Zn and In ions amounted to 130-154 µg/cm2/day for the Au78-86Pt13-19Zn1-2-
 alloy after the 1st day. After the 2nd day the release was < 20 µm/cm2/day.
 Grinding and polishing of the alloy surface (20 µm) reduced the release even
 after the 1st day (< 0.25 µg/cm2/day). After ceramic firing the concns. of
 ions of the Pd74-79Cu9-10 and the Co70Cr24Mo5 alloys were higher than after
 surface grinding or polishing (< 10 µg/cm2/day). An increased corrosiveness
 due to ceramic firing can therefore be reduced by grinding off 20 µm of the
 surface and polishing of those parts of the metal restoration which are not
 covered by ceramics.
 IT 193140-36-2
 (corrosion behavior of PMF alloys after surface treatment)
 RN 193140-36-2 ZCA
 CN Gold alloy, base, Au 78,Pt 19,Zn 2,In 0.8,Rh 0.5,Fe 0.2,Ir 0.1 (9CI)
 (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	78	7440-57-5
Pt	19	7440-06-4
Zn	2	7440-66-6
In	0.8	7440-74-6
Rh	0.5	7440-16-6
Fe	0.2	7439-89-6
Ir	0.1	7439-88-5

IT 193140-36-2
 (corrosion behavior of PMF alloys after surface treatment)

L25 ANSWER 15 OF 34 ZCA COPYRIGHT 2010 ACS on STN
 AN 124:63047 ZCA Full-text
 OREF 124:11729a,11732a
 TI Influence of Ni layer on the composites structure and bonding strength
 of Pd-30Ag-14Cu-10Au-10Pt-1Zn/Cu-2Be
 AU Xia, Wenhua; Chen, Qilong; Lai, Kangmu
 CS Institute of Precious Metals, Kunming, 650221, Peop. Rep. China
 SO Guijinshu (1995), 16(3), 22-8
 CODEN: GUIJE7; ISSN: 1004-0676

PB Guijinshu Yanjiuso
 DT Journal
 LA Chinese
 AB The brittle reason of bonding interface in Pd-30Ag-14Cu-10Au-10Pt-1Zn/Cu-2Be composite stripe was analyzed by metallog. observation. After adding Ni layer in the bonding interface of composite material, a contrast test of bonding strength was made on the composite interface. The result shows that a firm diffusion layer can be formed between the Ni layer and the two composite constituents. When Ni layer thickness is >3 μm , that the deposition of brittle phase can be inhibited effectively will be further studied.
 IT ~~172399-41-6~~, Cobalt 0-0.1, copper 14, gold 9.5-10, iron 0-0.1, nickel 0-0.1, palladium 34-36, platinum 9.5-10, silver 29-31, zinc 0.5-1.2
 (nickel interlayer effect on palladium alloy/copper alloy composite structure and bonding strength)
 RN 172399-41-6 ZCA
 CN Palladium alloy, base, Pd 34-36, Ag 29-31, Cu 14, Au 9.5-10, Pt 9.5-10, Zn 0.5-1.2, Co 0-0.1, Fe 0-0.1, Ni 0-0.1 (9CI) (CA INDEX NAME)

Component	Component Percent			Component Registry Number
=====+=====+=====				
Pd	34	-	36	7440-05-3
Ag	29	-	31	7440-22-4
Cu	14			7440-50-8
Au	9.5	-	10	7440-57-5
Pt	9.5	-	10	7440-06-4
Zn	0.5	-	1.2	7440-66-6
Co	0	-	0.1	7440-48-4
Fe	0	-	0.1	7439-89-6
Ni	0	-	0.1	7440-02-0

IT ~~172399-41-6~~, Cobalt 0-0.1, copper 14, gold 9.5-10, iron 0-0.1, nickel 0-0.1, palladium 34-36, platinum 9.5-10, silver 29-31, zinc 0.5-1.2
 (nickel interlayer effect on palladium alloy/copper alloy composite structure and bonding strength)

L25 ANSWER 16 OF 34 ZCA COPYRIGHT 2010 ACS on STN
 AN 123:93373 ZCA Full-text
 OREF 123:16477a,16480a
 TI Yellow dental alloy with high gold content
 IN Braemer, Wulf; Schuster, Martin; Kraemer, Winfried
 PA Heraeus Kulzer GmbH, Germany
 SO Ger. Offen., 4 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

PI	DE 4429728	A1	19950622	DE 1994-4429728	19940822
	JP 08067930	A	19960312	JP 1995-114637	19950512
PRAI	DE 1994-4429728	A	19940822		

AB The title alloy having excellent biocompatibility contains Pt-group metal(s) other than Pd and a low content of non-noble metals including only those essential for nutrition, e.g. Zn. Zn must be homogeneously dissolved in the alloy to avoid adverse effects on its phys. properties; addn. of Rh and Mn prevent formation of Zn-rich granules. The alloys are esp. suitable for manuf. of ceramic-bonded dental bridges. Thus, an alloy contg. Au 86.9, Pt 11.0, Rh 0.3, Zn 1.3, Mn 0.02, and Fe 0.48 wt.% m. 1050-1120° and had a HV5 cast hardness of 170.

IT ~~165256-85-9~~
(yellow dental alloy with high gold content)

RN 165256-85-9 ZCA

CN Gold alloy, base, Au 87,Pt 11,Zn 1.3,Fe 0.5,Rh 0.3 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	87	7440-57-5
Pt	11	7440-06-4
Zn	1.3	7440-66-6
Fe	0.5	7439-89-6
Rh	0.3	7440-16-6

IT ~~165256-85-9~~

(yellow dental alloy with high gold content)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 17 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 121:18117 ZCA Full-text

OREF 121:3327a,3330a

TI Corrosion-resistant dental silver-palladium based alloy

IN Bican, Josef

PA Czech.

SO Czech., 3 pp.

CODEN: CZXXA9

DT Patent

LA Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CS 277088	B6	19921118	CS 1990-1654	19900403
PRAI	CS 1990-1654		19900403		

AB The dental alloy consists of Ag 40-75, Pd 20-30, Au 0.01-10, Cu 1-17, Zn, Cd, Sn, In, and/or Ga 0.1-5, and Cr, Ni, Co, Fe, B, Pt, Rh, Ir, and/or Ru 0.02-2%. The alloy has high corrosion resistance, fine-grained

microstructure, and its m.p. is lower than that of conventional Pd-Ag-Sn alloys.

IT 155716-10-2

(for dental prosthetics)

RN 155716-10-2 ZCA

CN Silver alloy, base, Ag 40-75, Pd 20-30, Cu 1-17, Au 0-10, Cd 0.1-5, Ga 0.1-5, In 0.1-5, Sn 0.1-5, Zn 0.1-5, B 0-2, Co 0-2, Cr 0-2, Fe 0-2, Ir 0-2, Ni 0-2, Pt 0-2, Rh 0-2, Ru 0-2 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
-----------	----------------------	------------------------------

Ag	40 - 75	7440-22-4
Pd	20 - 30	7440-05-3
Cu	1 - 17	7440-50-8
Au	0 - 10	7440-57-5
Cd	0.1 - 5	7440-43-9
Ga	0.1 - 5	7440-55-3
In	0.1 - 5	7440-74-6
Sn	0.1 - 5	7440-31-5
Zn	0.1 - 5	7440-66-6
B	0 - 2	7440-42-8
Co	0 - 2	7440-48-4
Cr	0 - 2	7440-47-3
Fe	0 - 2	7439-89-6
Ir	0 - 2	7439-88-5
Ni	0 - 2	7440-02-0
Pt	0 - 2	7440-06-4
Rh	0 - 2	7440-16-6
Ru	0 - 2	7440-18-8

IT 155716-10-2

(for dental prosthetics)

L25 ANSWER 18 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 120:234040 ZCA Full-text

OREF 120:41177a, 41180a

TI Semiconductor device with copper or copper alloy wiring and/or electrode

IN Fujii, Kazumi; Ito, Masahiko; Kobayashi, Shiro

PA Hitachi Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 05267299	A	19931015	JP 1992-63592	19920319
	JP 3220760	B2	20011022		
	JP 2002033324	A	20020131	JP 2001-159041	19920319
	JP 3498094	B2	20040216		

PRAI JP 1992-63592 A3 19920319
 AB In the device the circuit wiring and/or electrode is coated with a Cu compd. with N or P to improve the oxidn. resistance and corrosion resistance. Optionally, the wiring and/or electrode is coated with Cu alloy preferably contg. ≥ 1 of Ag, Be, Cr, Fe, Mg, Ni, Pd, Pt, Si, Sn, Ti, Zn, and Zr.
 IT ~~154361-59-8~~
 (coatings, on copper wirings in semiconductor chip, for oxidn. and corrosion resistance)
 RN 154361-59-8 ZCA
 CN Copper alloy, base, Cu 0-98, Ti 0.5-50, Ag 0.2-50, Ni 0.2-50, Pd 0.1-50, Pt 0.1-50, Sn 0.1-50, Zn 0.1-50, Cr 0-50, Zr 0-50, Mg 0.5-20, Fe 0-20, Be 0-10, Si 0-10 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Cu	0 - 98	7440-50-8
Ti	0.5 - 50	7440-32-6
Ag	0.2 - 50	7440-22-4
Ni	0.2 - 50	7440-02-0
Pd	0.1 - 50	7440-05-3
Pt	0.1 - 50	7440-06-4
Sn	0.1 - 50	7440-31-5
Zn	0.1 - 50	7440-66-6
Cr	0 - 50	7440-47-3
Zr	0 - 50	7440-67-7
Mg	0.5 - 20	7439-95-4
Fe	0 - 20	7439-89-6
Be	0 - 10	7440-41-7
Si	0 - 10	7440-21-3

IT ~~154361-59-8~~
 (coatings, on copper wirings in semiconductor chip, for oxidn. and corrosion resistance)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L25 ANSWER 19 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 118:219912 ZCA Full-text

OREF 118:37777a,37780a

TI Palladium alloy for fusion to a dental ceramic

IN Groll, Werner; Hathaway, Doris; Kempf, Bernd; Schoeck, Gernot

PA Degussa A.-G., Germany

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 530697	A1	19930310	EP 1992-114715	19920828
	EP 530697	B1	19960508		

DE 4226484	A1	19930408	DE 1992-4226484	19920811
DE 4226484	C2	19930902		
DE 4226484	C3	19960801		
AT 137663	T	19960515	AT 1992-114715	19920828
JP 05194133	A	19930803	JP 1992-235530	19920903
JP 3437590	B2	20030818		
US 5298218	A	19940329	US 1992-939477	19920904
PRAI DE 1991-4129592	A	19910906		
DE 1992-4226484	A	19920811		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Dental alloys contain Pd 66-85, Au 1-5, Ag 0-4, Pt, Fe and/or Co 0-4, and Ga, Sn and In each 0.5-7% by wt. (Ga + Sn + In 9-14%), as well as Ge and/or Zn 0-2, and Ir, Ru and/or Re 0-1%. The alloys fuse well with dental ceramics, without staining them.

IT ~~147385-68-0~~
(dental alloy)

RN 147385-68-0 ZCA

CN Palladium alloy, base, Pd 66-85, Au 1-20, Ga 0.5-7, In 0.5-7, Sn 0.5-7, Co 0.5-4, Fe 0.5-4, Pt 0.5-4, Ag 0-4, Ge 0-2, Zn 0-2, Ir 0-1, Rh 0-1, Ru 0-1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Pd	66 - 85	7440-05-3
Au	1 - 20	7440-57-5
Ga	0.5 - 7	7440-55-3
In	0.5 - 7	7440-74-6
Sn	0.5 - 7	7440-31-5
Co	0.5 - 4	7440-48-4
Fe	0.5 - 4	7439-89-6
Pt	0.5 - 4	7440-06-4
Ag	0 - 4	7440-22-4
Ge	0 - 2	7440-56-4
Zn	0 - 2	7440-66-6
Ir	0 - 1	7439-88-5
Rh	0 - 1	7440-16-6
Ru	0 - 1	7440-18-8

IT ~~147385-68-0~~
(dental alloy)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L25 ANSWER 20 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 117:14459 ZCA Full-text

OREF 117:2573a,2576a

TI Yellow dental alloy with a high gold content

IN Schoeck, Gernot; Kempf, Bernd; Groll, Werner

PA Degussa A.-G., Germany

SO Eur. Pat. Appl., 7 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	EP 478932	A1	19920408	EP 1991-113530	19910813
	EP 478932	B1	19931215		
	EP 478932	B2	19970502		
	DE 4031169	C1	19920423	DE 1990-4031169	19901003
	AT 98466	T	19940115	AT 1991-113530	19910813
	ES 2047367	T3	19940216	ES 1991-113530	19910813
	JP 04246140	A	19920902	JP 1991-248630	19910927
	JP 2525527	B2	19960821		
	CA 2052646	A1	19920404	CA 1991-2052646	19911002
	CA 2052646	C	20070109		
	AU 9185531	A	19920430	AU 1991-85531	19911002
	AU 638609	B2	19930701		
	BR 9104248	A	19920602	BR 1991-4248	19911002
	ZA 9107893	A	19930331	ZA 1991-7893	19911002
	US 5221207	A	19930622	US 1991-769433	19911002
	IL 99631	A	19951231	IL 1991-99631	19911002
PRAI	DE 1990-4031169	A	19901003		
	EP 1991-113530	A	19910813		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title alloy, for dental castings and ceramic facings, consists of Au 70-85, Ag 5-13, Pt 2-9, Pd 0-4.5, Ir, Re, Rh, and/or Ru 0.05-1, Cu 2-8, In, Zn, and/or Ge 0.1-6, and Ga, Fe, and/or W 0-4 wt.%. The alloy is very hard, does not discolor ceramic facings, and has a suitable thermal expansion coeff. Thus, an alloy contg. Au 78.7, Ag 9.2, Pt 4.4, Pd 2, Ir/Re/Rh 0.1, Cu 4.4, and Zn 1.2 wt.% m.p. 945-1033° and had yield strength 350 MPa, elongation at fracture 19.7%, casting hardness 165 HVS, and thermal expansion coeff. 16.4 + 10-6 K-1.

IT 141687-24-3 142044-02-8

(as dental material)

RN 141687-24-3 ZCA

CN Gold alloy, base, Au 70-85, Ag 5-13, Pt 2-9, Cu 2-8, Ge 0-6, In 0-6, Zn 0-6, Pd 0-4.5, Fe 0-4, Ga 0-4, W 0-4, Ir 0-1, Re 0-1, Rh 0-1, Ru 0-1 (9CI)
(CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====+
Au	70 - 85	7440-57-5
Ag	5 - 13	7440-22-4
Pt	2 - 9	7440-06-4
Cu	2 - 8	7440-50-8
Ge	0 - 6	7440-56-4
In	0 - 6	7440-74-6
Zn	0 - 6	7440-66-6
Pd	0 - 4.5	7440-05-3
Fe	0 - 4	7439-89-6
Ga	0 - 4	7440-55-3
W	0 - 4	7440-33-7

Ir	0	-	1	7439-88-5
Re	0	-	1	7440-15-5
Rh	0	-	1	7440-16-6
Ru	0	-	1	7440-18-8

RN 142044-02-8 ZCA

CN Gold alloy, base, Au 74, Ag 9.2, Pt 5.4, Cu 4.4, Fe 2, Pd 2, In 1.5, Zn 1.5, Ir 0-0.1, Re 0-0.1, Rh 0-0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	74	7440-57-5
Ag	9.2	7440-22-4
Pt	5.4	7440-06-4
Cu	4.4	7440-50-8
Fe	2	7439-89-6
Pd	2	7440-05-3
In	1.5	7440-74-6
Zn	1.5	7440-66-6
Ir	0 - 0.1	7439-88-5
Re	0 - 0.1	7440-15-5
Rh	0 - 0.1	7440-16-6

IT 141687-24-3 142044-02-8

(as dental material)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L25 ANSWER 21 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 116:45112 ZCA Full-text

OREF 116:7705a,7708a

TI Platinum alloys for ornaments and bright blackening of ornaments

IN Takayanagi, Takeshi

PA Agency of Industrial Sciences and Technology, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 03100159	A	19910425	JP 1989-236089	19890912
	JP 05008267	B	19930201		
PRAI	JP 1989-236089		19890912		

AB Ornaments are manufd. from Pt alloys contg. 3-15% Rh and/or Ru and $\leq 15\%$ Pd, Ir, Os, Au, Ag, Cu, and/or Ni, or from Pt alloys contg. Cu, Fe, Co, and/or Ti 3-20, and optionally Zn 0.5-5 and Pd, Rh, Ir, Ru, Os, Au, Ag, and/or Ni $< 15\%$. The ornaments are heated in air or oxidizing atm. at temps. below the m.p. of the alloys and air, water, or oil quenched for bright black finish. Thus, a mixt. of 90 g Pt and 10 g electrolytic Fe was arc melted in Ar and centrifugally investment cast into rings. The rings were polished and

heated in air at 900° for 15 min, water quenched, and buffed. The manufd. rings had 3-4 μ m bright black layer contg. Pt and Fe₃O₄.

IT 138412-32-5 138412-34-7

(for ornaments, bright blackening of)

RN 138412-32-5 ZCA

CN Platinum alloy, base, Pt 85,Co 5,Fe 5,Ag 2,Ni 2,Zn 1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Pt	85	7440-06-4
Co	5	7440-48-4
Fe	5	7439-89-6
Ag	2	7440-22-4
Ni	2	7440-02-0
Zn	1	7440-66-6

RN 138412-34-7 ZCA

CN Platinum alloy, base, Pt 85,Co 5,Fe 3,Ag 2,Ni 2,Pd 2,Zn 1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Pt	85	7440-06-4
Co	5	7440-48-4
Fe	3	7439-89-6
Ag	2	7440-22-4
Ni	2	7440-02-0
Pd	2	7440-05-3
Zn	1	7440-66-6

IT 138412-32-5 138412-34-7

(for ornaments, bright blackening of)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L25 ANSWER 22 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 107:81574 ZCA Full-text

OREF 107:13359a,13362a

TI Refining precious metals

IN Davis, Edward Ernest

PA Fine Metals Export Corp. (Pty.) Ltd., Australia

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8701732	A1	19870326	WO 1986-AU269	19860912

ZA 8606852	A	19880525	ZA 1986-6852	19860909
IN 169238	A1	19910914	IN 1986-DE807	19860910
CN 86106820	A	19870513	CN 1986-106820	19860911
CN 1006233	B	19891227		
AU 8663776	A	19870407	AU 1986-63776	19860912
AU 591184	B2	19891130		
EP 236456	A1	19870916	EP 1986-905668	19860912
BR 8606862	A	19871103	BR 1986-6862	19860912
HU 44291	A2	19880229	HU 1986-4777	19860912
JP 63500876	T	19880331	JP 1986-505011	19860912
ES 2002337	A6	19880801	ES 1986-1868	19860912
FI 8702012	A	19870506	FI 1987-2012	19870506
DK 8702415	A	19870512	DK 1987-2415	19870512
NO 8701947	A	19870512	NO 1987-1947	19870512
US 4857107	A	19890815	US 1987-82405	19870518
PRAI AU 1985-2406	A	19850912		
WO 1986-AU269	A	19860912		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB One-step refining of crude alloy feed contg. precious metals consists of dissolving the base metal in an acid. The Au-contg. feed as Cu-rich alloy is dissolved in HNO₃, followed by a secondary treatment with HCl to ppt. Ag as AgCl. Use of aqua regia or electrolysis is not necessary. Scrap of Au-Ag alloy was melted with Cu addn. to prep. the feed alloy contg. Cu 67, Au 25.2, and Ag 6.2 with Pd <0.1, Pt <0.06, and Fe, Zn, and Sn 0.1-1% each. Granular alloy feed was dissolved in concd. HNO₃ to obtain granular Au residue of 98.9% purity, and AgCl was pptd. for conventional recovery and redn.

IT 109852-06-4

(dissoln. in nitric acid of, gold and silver recovery by)

RN 109852-06-4 ZCA

CN Copper alloy, base, Cu 67,Au 25,Ag 6.2,Fe 0.1-1,Sn 0.1-1,Zn 0.1-1,Pd 0.1,Pt 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Cu	67	7440-50-8
Au	25	7440-57-5
Ag	6.2	7440-22-4
Fe	0.1 - 1	7439-89-6
Sn	0.1 - 1	7440-31-5
Zn	0.1 - 1	7440-66-6
Pd	0.1	7440-05-3
Pt	0.1	7440-06-4

IT 109852-06-4

(dissoln. in nitric acid of, gold and silver recovery by)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 104:116028 ZCA Full-text
 OREF 104:18275a,18278a
 TI Galvanic currents between dental alloys in vitro
 AU Arvidson, Kristina; Johansson, E. Gunnar
 CS Dep. Prosthetics, Karolinska Inst., Stockholm, S-141 04, Swed.
 SO Scandinavian Journal of Dental Research (1985), 93(5),
 467-73
 CODEN: SJDRAN; ISSN: 0029-845X
 DT Journal
 LA English
 AB The galvanic current densities between Au, amalgam and Co-Cr and 3 different
 classes of dental alloys were detd. in vitro in artificial saliva kept at
 35°. The max. c.d. of 200 µA/dm² was obtained between the conventional
 amalgam and a type III Au alloy. Galvanic currents of lesser magnitude could
 also be measured between amalgams high in Cu and the other alloys. No
 measurable current densities were obtained between Au alloys and between Au
 and Co-Cr alloy with the exception of a casting and a solder Au alloy
 commonly used in combination.
 IT ~~64386-33-0D~~, amalgamated
 (galvanic currents between dental alloy combinations and, corrosion
 in relation to)
 RN 64386-33-0 ZCA
 CN Gold alloy, base, Au,Ag,Cu,Fe,In,Pd,Pt,Zn (Herador Lot II) (9CI) (CA
 INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Au	63	7440-57-5
Ag	19	7440-22-4
Cu	8.6	7440-50-8
In	6.6	7440-74-6
Pd	2.7	7440-05-3
Fe	0.1	7439-89-6
Pt	0.1	7440-06-4
Zn	0.1	7440-66-6

IT ~~64386-33-0D~~, amalgamated
 (galvanic currents between dental alloy combinations and, corrosion
 in relation to)
 OSC.G 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17
 CITINGS)

L25 ANSWER 24 OF 34 ZCA COPYRIGHT 2010 ACS on STN
 AN 104:93714 ZCA Full-text
 OREF 104:14789a,14792a
 TI Ornamental copper alloys with golden color
 IN Tamemasa, Hiroshi
 PA Tanaka Noble Metal Industrial Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 2 pp.
 CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 60177155	A	19850911	JP 1984-32904	19840223
	JP 03068095	B	19911025		
PRAI	JP 1984-32904		19840223		

AB The golden-colored Cu alloy contg. Zn 7-45, Fe 0.1-5, and a noble metal 0.01-2% is corrosion resistant and has good workability and mech. properties. Thus, golden-colored alloy consisting of Cu 50, Zn 44, Fe 4.1, and Au 1.9% had tensile strength 78 kg/mm², elongation 14.0%, and workability of 70% by cold working. The alloy was not discolored by dipping into synthetic sweat.

IT 100691-12-1
(golden color and high formability of, for ornamental applications)
RN 100691-12-1 ZCA
CN Copper alloy, base, Cu 74,Zn 23,Fe 2.2,Pt 0.8 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Cu	74	7440-50-8
Zn	23	7440-66-6
Fe	2.2	7439-89-6
Pt	0.8	7440-06-4

IT 100691-12-1
(golden color and high formability of, for ornamental applications)

L25 ANSWER 25 OF 34 ZCA COPYRIGHT 2010 ACS on STN
AN 101:77426 ZCA Full-text
OREF 101:11867a,11870a
TI Sliding electric contact alloys
PA Tanaka Noble Metal Industrial Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 59056547	A	19840402	JP 1982-168162	19820927
	JP 02060728	B	19901218		
PRAI	JP 1982-168162		19820927		

AB Conventional alloy contg. Au 9-11, Pt 9-11, Pd 34-36, Ag 29-31, Cu 13-15, and Zn 0.5-1.5% is alloyed with ≥ 1 of Sb, Te, Mo, Pb, Se, and As 0.5-10, optionally with Fe-group metals 0.01-1%. When used as a wire of 0.7 diam. + 8 mm length, the wear is 1.5-3.1 mg and contact resistance 10-68 m Ω , compared with 7.5 and 11-360 for the original alloy. Thus, wire wear was 1.5 mg and contact resistance 14-32 m Ω for the alloy [91408-18-3] contg.

Au 10, Pt 10, Pd 35, Ag 30, Cu 14, and Zn 1%, addnl. alloyed with Sb 5 and Fe 0.1%.

IT ~~91408-18-3~~

(elec. contact wire from, wear resistance of)

RN 91408-18-3 ZCA

CN Palladium alloy, base, Pd 33, Ag 28, Cu 13, Au 9.5, Pt 9.5, Sb 5, Zn 1, Fe 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+=====+=====		
Pd	33	7440-05-3
Ag	28	7440-22-4
Cu	13	7440-50-8
Au	9.5	7440-57-5
Pt	9.5	7440-06-4
Sb	5	7440-36-0
Zn	1	7440-66-6
Fe	0.1	7439-89-6

IT ~~91408-18-3~~

(elec. contact wire from, wear resistance of)

L25 ANSWER 26 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 98:185619 ZCA Full-text

OREF 98:28129a,28132a

TI Precious metal alloys compatible with ceramic materials for dental crowns and bridges

IN Hausselt, Juergen; Schoeck, Gernot

PA Degussa A.-G., Fed. Rep. Ger.

SO Ger. Offen., 9 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	DE 3132143	A1	19830303	DE 1981-3132143	19810814
	DE 3132143	C2	19850704		
PRAI	DE 1981-3132143		19810814		

AB Precious metal alloys, compatible with ceramic materials, are used for the manuf. of denture crowns and bridges. The alloys consist of Au 70-80, Pt 1-10, Pd 5-15, Sn 0.1-5, In 0-5 and Zn 0-2% and 1 or more elements of each of the following groups: (a) 0.1-9% Cu or Ag, (b) 0.05-2% Ir, Ru or Rh, (c) 0.1-3% Co, Cr, Ga, Mo, Nb, Ta or Va. The total wt. of elements of these groups must not exceed 10%. Properties such as elongation to break, hardness and tensile strength of 18 alloys contg. 75-84% Au are given. The structure of these alloys is fine-grained with a particle size of 2000-4000 grains/mm².

IT ~~85537-99-1~~

(ceramic materials-compatible, for dentures)

RN 85537-99-1 ZCA

CN Gold alloy, base, Au 77,Pt 9.8,Pd 9,In 1.5,Ag 1.2,Sn 0.5,Cu 0.3,Fe 0.2,Re 0.2,Zn 0.2 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	77	7440-57-5
Pt	9.8	7440-06-4
Pd	9	7440-05-3
In	1.5	7440-74-6
Ag	1.2	7440-22-4
Sn	0.5	7440-31-5
Cu	0.3	7440-50-8
Fe	0.2	7439-89-6
Re	0.2	7440-15-5
Zn	0.2	7440-66-6

IT 85537-99-1

(ceramic materials-compatible, for dentures)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L25 ANSWER 27 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 96:91689 ZCA Full-text

OREF 96:14961a,14964a

TI Alloy based on palladium and silver

PA Elephant Edelmetaal B. V., Neth.

SO Neth. Appl., 6 pp.

CODEN: NAXXAN

DT Patent

LA Dutch

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	NL 8001820	A	19811016	NL 1980-1820	19800327
PRAI	NL 1980-1820		19800327		

AB Alloys contg. Pd 40-60, Ag 24-30, In 0-12, Sn 0-11, Ir 0.05-0.5 and/or Re 0.05-1.0, and Fe, Co, and/or Ni 0.05-0.5 wt.% are used for dental fillings with porcelain overlay. These alloys are corrosion resistant, have a thermal expansion coeff. of $14.0 + 10^{-6}$ - $14.5 + 10^{-6}/^{\circ}$, and have a high elastic modulus. In alloys contg. Fe, the Fe is added in the form of an alloy with Cu, providing a final Cu content of 0.05-0.5 wt.%. Addn. of 0.5 wt.% Pt increases the corrosion resistance, and addn. of ≤ 4 wt.% Ga, or of ≤ 6 wt.% Zn + 0.1 wt.% Si, lowers the m.p. of the alloys. A thin ceramic layer (contg. SiO₂, SnO₂, Al₂O₃, Na₂O, CaO, K₂O, and traces of Fe₂O₃) is baked onto the alloy under vacuum before application of the porcelain layer to prevent discoloration of the porcelain by Ag in the alloy. The ceramic layer also increases the binding strength of the porcelain to the alloy. A representative alloy contained Pt 0.5, Pd 60.0, Ag 26.2, Sn 3.0, In 3.5, Ir 0.05, Re 0.05, Fe 0.3, Cu 0.3, Zn 4.0, and Si 0.1 wt.%.

IT 80790-36-9

(for dental fillings, with porcelain overlay)

RN 80790-36-9 ZCA
CN Palladium alloy, base, Pd 60,Ag 26,Zn 4,In 3.5,Sn 3,Pt 0.5,Cu 0.3,Fe
0.3,Ir 0.1,Re 0.1,Si 0.1 (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 80790-36-9

(for dental fillings, with porcelain overlay)

L25 ANSWER 28 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 95:12715 ZCA Full-text

OREF 95:2205a,2208a

TI The corrosion of dental alloys in the oral environment

AU Ewers, G. J.; Thornber, M. R.

CS Dent. Sch., Univ. West. Australia, Nedlands, Australia

SO Journal of Electroanalytical Chemistry and Interfacial
Electrochemistry (1981), 118, 275-90

CODEN: JEIEBC; ISSN: 0022-0728

DT Journal

LA English

AB A series of in-vivo and in-vitro tests were carried out to det. the
corrosive behavior of 14 commonly used dental alloys. The 5 amalgam alloys
examd. had wide differences in corrosion resistance. the in-vitro tests
providing the results expected from the manufacturer's claims. In-vitro
tests provided results confirming the manufacturer's claims; however, in-
vivo testing gave a much more varied response, highlighting the deficiency
of current in-vitro techniques. The dental Au alloys behaved predictably,
with Au tarnish appearing as a Ag S compd. The stainless steel pins, brass
screw posts, and Ag cones had corrosion tendencies that suggested they
should not be exposed to the oral environment. A Cr-Co alloy corroded at
voltages beyond those normally experienced in the mouth. A technique for
assessing an alloy surface at different stages of corrosion was developed.

IT 77660-20-9

(dental material, corrosion of, in oral environment)

RN 77660-20-9 ZCA

CN Gold alloy, base, Au,Ag,Cu,Fe,Pd,Pt,Zn (Degulor R) (9CI) (CA INDEX
NAME)

Component	Component Percent	Component Registry Number
Au	79	7440-57-5
Cu	7.2	7440-50-8
Zn	5.7	7440-66-6
Ag	5.1	7440-22-4
Pd	0.5	7440-05-3
Pt	0.5	7440-06-4
Fe	0.1	7439-89-6

IT 77660-20-9

(dental material, corrosion of, in oral environment)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L25 ANSWER 29 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 89:117902 ZCA Full-text

OREF 89:18139a,18142a

TI Dental alloys for fusing to porcelains

IN Otsuka, Shosuke

PA Nihon Shiken Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 3 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 53004720	A	19780117	JP 1976-78523	19760703
PRAI	JP 1976-78523	A	19760703		

AB Au alloys for fusing to porcelains contain Au 25-55, Pt 1-15, Pd 15-45, Ag 10-30, In 0-3, Ir 0-1, Sn 0.3, Fe 0-3, Ta 0-2, Ti 0-1, Zn 0-3, Si 0-1, Ni 0-15, Cu 0-3 and Al 0-3%.

IT ~~67225-11-0~~ ~~67225-12-1~~

(dental alloy, for fusion to porcelains)

RN 67225-11-0 ZCA

CN Palladium alloy, base, Pd 34,Au 28,Ag 25,Pt 6.8,In 1,Ni 1,Ti 1,Zn 1,Sn 0.9,Fe 0.8,Ta 0.8,Ir 0.1,Si 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Pd	34	7440-05-3
Au	28	7440-57-5
Ag	25	7440-22-4
Pt	6.8	7440-06-4
In	1	7440-74-6
Ni	1	7440-02-0
Ti	1	7440-32-6
Zn	1	7440-66-6
Sn	0.9	7440-31-5
Fe	0.8	7439-89-6
Ta	0.8	7440-25-7
Ir	0.1	7439-88-5
Si	0.1	7440-21-3

RN 67225-12-1 ZCA

CN Gold alloy, base, Au 35,Pd 31,Ag 25,Pt 5.6,Cu 0.8,Zn 0.7,Sn 0.6,In 0.5,Ta 0.5,Fe 0.3,Al 0.1,Ti 0.1 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	35	7440-57-5
Pd	31	7440-05-3
Ag	25	7440-22-4
Pt	5.6	7440-06-4
Cu	0.8	7440-50-8

Zn	0.7	7440-66-6
Sn	0.6	7440-31-5
In	0.5	7440-74-6
Ta	0.5	7440-25-7
Fe	0.3	7439-89-6
Al	0.1	7429-90-5
Ti	0.1	7440-32-6

IT ~~67225-11-0~~ ~~67225-12-1~~
(dental alloy, for fusion to porcelains)

L25 ANSWER 30 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 87:172851 ZCA Full-text

OREF 87:27255a,27258a

TI Combinations of gold alloys in soldered joints

AU Bergman, Maud

CS Dep. Dent. Technol., Univ. Umea, Umea, Swed.

SO Swedish Dental Journal (1977), 1(3), 99-106

CODEN: SDJOD5; ISSN: 0347-9994

DT Journal

LA English

AB Pairs of Au-base dental casting alloys used with conventional and ceramic-metal techniques for fixed bridge construction were soldered together using various solders and the joints were examd. microscopically to det. the most suitable combinations of alloys and solders for use in the prepn. of combined bridges. The solderings were done properly according to the manufacturers' recommendations with no subsequent heat treatment, but formation of demarcated domains was obsd. at sonic Au-solder junction. Of the 72 joints studied, 53 showed only a few microporosities, 19 had several microporosities, 9 had isolated voids, and 2 joints had a lot of voids. The casting alloy-solder combinations recommended by the casting alloy manufacturers seemed to be reliable. Joints of JS C [64386-12-5], JS C 3 [64386-13-6] and JS D [64386-14-7] with Degulor-Lot 2 [64386-32-9] solder alloy were suitable combinations. Solder alloys such as Herador Lot II [64386-33-0] were unsuitable for use with JS casting alloys or Degulor M [64386-34-1].

IT ~~64386-33-0~~
(joints of gold dental casting alloys and)

RN 64386-33-0 ZCA

CN Gold alloy, base, Au,Ag,Cu,Fe,In,Pd,Pt,Zn (Herador Lot II) (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	63	7440-57-5
Ag	19	7440-22-4
Cu	8.6	7440-50-8
In	6.6	7440-74-6
Pd	2.7	7440-05-3
Fe	0.1	7439-89-6
Pt	0.1	7440-06-4

Zn 0.1 7440-66-6

IT 64386-33-0

(joints of gold dental casting alloys and)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L25 ANSWER 31 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 80:136657 ZCA Full-text

OREF 80:22029a,22032a

TI Gold alloy

IN Hariya, Hiroshi; Kawanishi, Kazuyasu; Asahina, Michio

PA Suwa Seikosha Co., Ltd.

SO Jpn. Tokkyo Koho, 5 pp.

CODEN: JAXXAD

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 48039131	B	19731121	JP 1968-56278	19680809
PRAI	JP 1968-56278		19680809		

AB The age-hardenable Au alloy contains (Fe+Co) 1-30 and 0<Co<7%. Cr 1-9 and/or Pt 1-15 with (Cr+Pt) 1-15 and Zn 0.1-8, Cu 0.1-30, Ni 0.01-1, and/or Ag 0.01-1% are also added. The alloy has a Vickers hardness of 150-200 in the soln. treated condition. The alloy is used for jewelry and elec. contacts. Elastic strength performance is enhanced by aging.

IT 52361-95-2

(age hardenable, for elec. contacts and jewelry)

RN 52361-95-2 ZCA

CN Gold alloy, base, Au 60-84, Cu 0-25, Fe 1.6-21, Pt 0-11, Cr 0-8.2, Zn 0-7.3, Co 0.7-6.3, Ni 0-0.9, Ag 0-0.8 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	60 - 84	7440-57-5
Cu	0 - 25	7440-50-8
Fe	1.6 - 21	7439-89-6
Pt	0 - 11	7440-06-4
Cr	0 - 8.2	7440-47-3
Zn	0 - 7.3	7440-66-6
Co	0.7 - 6.3	7440-48-4
Ni	0 - 0.9	7440-02-0
Ag	0 - 0.8	7440-22-4

IT 52361-95-2

(age hardenable, for elec. contacts and jewelry)

L25 ANSWER 32 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 80:18514 ZCA Full-text

OREF 80:3059a,3062a

TI Gold alloy

IN Hariya, Hiroshi; Kawanishi, Kazuwa; Asahina, Michio
PA Suwa Seikosha Co., Ltd.
SO Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE -----
PI	JP 48024931	B	19730725	JP 1968-10218	19680219
PRAI	JP 1968-10218		19680219		

AB The alloys described have good appearance, workability, and mech. properties. They are useful for jewelry, watch cases, pen points, and elec.-contact tips. They have good age-hardening properties and contain Fe 3-30, Cr 2-10, plus Zn 0.1-8, Cu 0.1-30, Ni 0.01-1, and/or Ag 0.01-1, and the rest Au. The alloys may also contain 1-13% Pt if (Cr + Pt) is <15%. For example, a mixt. of Au, Fe, ferrochromium, Pt, Cu, and Ni was charged in a high-frequency induction furnace, evacuated to 10⁻³ to 10⁻⁴ torr, and melted under Ar with the Ag and Zn addns. The resulting ingot was heat treated at 800° for 30 min and cold-worked in water. The alloy contained Fe 6.03, Cr 5.76, Pt 3.54, Zn 2.02, Cu 7.77, Ni 0.30, Ag 0.60%, and the rest Au. The alloy solid soln. had a Vickers hardness of 156 at 800°; after aging for 3 hr at 380°, the Vickers hardness was 321. Contact with artificial perspiration caused no corrosion or change in appearance after 10 days.

IT 51426-39-2
(age hardenable corrosion-resistant, for elec. contacts and jewelry)

RN 51426-39-2 ZCA

CN Gold alloy, base, Au 74,Cu 7.8,Fe 6,Cr 5.8,Pt 3.5,Zn 2,Ag 0.6,Ni 0.3
(9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
Au	74	7440-57-5
Cu	7.8	7440-50-8
Fe	6	7439-89-6
Cr	5.8	7440-47-3
Pt	3.5	7440-06-4
Zn	2	7440-66-6
Ag	0.6	7440-22-4
Ni	0.3	7440-02-0

IT 51426-39-2
(age hardenable corrosion-resistant, for elec. contacts and jewelry)

L25 ANSWER 33 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 78:150386 ZCA Full-text

OREF 78:24167a,24170a

TI Rhenium-containing gold alloys

IN Burnett, Arthur Peter
PA Ney, J. M., Co.
SO U.S., 4 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 3716356	A	19730213	US 1970-74825	19700923
PRAI	US 1967-665995	A2	19670726		
	US 1968-764589	A2	19681002		

AB Castable Au alloys of low shrinkage porosity, equiaxed grain structure, and resistance to intergranular cracking are made by addn. of 0.03-1.0 wt. % Re. The sum of Pd + Pt is <40.4 wt. %. To obtain an equiaxed grain structure Pt ≥ 1 and Fe ≥ 0.3 wt. % are added. The castings are made in phosphate-bonded investment molds preheated to 700°. Thus, castings of Au 79.4, Pd 10.8, Pt 5.9, Re 0.1, Fe 0.8, Sn 1.0 and Ag 2.0% have a grain size of 0.044 mm.

IT 39364-26-6

(grain size control in cast)

RN 39364-26-6 ZCA

CN Gold alloy, base, Au 60-91, Pd 5.5-40, Pt 0-6, Ag 0-2, Sn 0-1.1, Re 0.1-1, Fe 0-0.8, Zn 0-0.7 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====	=====	=====
Au	60 - 91	7440-57-5
Pd	5.5 - 40	7440-05-3
Pt	0 - 6	7440-06-4
Ag	0 - 2	7440-22-4
Sn	0 - 1.1	7440-31-5
Re	0.1 - 1	7440-15-5
Fe	0 - 0.8	7439-89-6
Zn	0 - 0.7	7440-66-6

IT 39364-26-6

(grain size control in cast)

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L25 ANSWER 34 OF 34 ZCA COPYRIGHT 2010 ACS on STN

AN 77:65564 ZCA Full-text

OREF 77:10811a,10814a

TI Gold-base alloys for use in dentistry and industry

IN Burnett, Arthur Peter

PA Ney, J. M., Co.

SO U.S., 2 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 3666540	A	19720530	US 1967-656048	19670726
PRAI	US 1967-656048	A	19670726		

AB A Au alloy of good corrosion resistance, high solidus temp., satisfactory hardness, and good casting properties is provided for dental purposes. The alloy contains Au 78-85, Pd 8-13, Pt 4-8, Fe 0.7-1.0, Sn 0.9-1.4, and Re 0.07-0.2%. The addn. of Re provides grain refining, while the addn. of Ag (up to 2), Zn (up to 1.5% and In (up to 1%) promotes fluidity. The hardness of the alloy can be developed by air-cooling from >980° to 100-150° at a rate of 80-130°/min. Age hardening of the alloy is done at 530-45° for 15-30 min and for optimum results the Fe:Pt ratio should be kept at 0.4-0.6:1. Thus, a cast Au alloy having a solidus temp. of 1173° and a thermal linear expansion coeff. of 1.4 + 10⁻⁵ degree⁻¹ was made by casting an alloy compn. contg. Au 81.0, Pd 8.3, Pt 2.2, Fe 0.6, Sn 2.2, and Re 0.1% in a phosphate bonded investment mold. The alloy was air-cooled from 926°. After age hardening the ultimate tensile strength of the alloy was 90,000 psi.

IT 37200-84-3

(for dentistry)

RN 37200-84-3 ZCA

CN Gold alloy, base, Au 78-85, Pd 8-13, Pt 4-8, Ag 0-2, Zn 0-1.5, Sn 0.9-1.4, Fe 0.7-1, In 0-1, Re 0.1-0.2 (9CI) (CA INDEX NAME)

Component	Component Percent	Component Registry Number
=====+	=====+	=====
Au	78 - 85	7440-57-5
Pd	8 - 13	7440-05-3
Pt	4 - 8	7440-06-4
Ag	0 - 2	7440-22-4
Zn	0 - 1.5	7440-66-6
Sn	0.9 - 1.4	7440-31-5
Fe	0.7 - 1	7439-89-6
In	0 - 1	7440-74-6
Re	0.1 - 0.2	7440-15-5

IT 37200-84-3

(for dentistry)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)